HCD-S400

SERVICE MANUAL

AEP Model
UK Model

Ver 1.3 2003. 02

HCD-S400 is the amplifier, DVD/CD and tuner section in DAV-S400.

Model Name Using Similar Mechanism	HCD-S500/S800
Mechanism Type	CDM55C-DVBU8
Base Unit Name	DVBU8
Optical Pick-up Name	KHM-240AAA

SPECIFICATIONS

Amplifier section

Stereo mode	40 W + 40 W (6 ohms at 1 kHz, THD 10 %)
Surround mode	Front: 40 W + 40 W Center*: 40 W Rear*: 40 W + 40 W (6 ohms at 1 kHz, THD 10 %) Subwoofer*: 100 W (3 ohms at 100 Hz, THD 10 %)

* *Depending on the sound field settings and the source, there may be no sound output.*

Inputs (Analog)	AUDIO 1, 2: Sensitivity: 150 mV Impedance: 50 kilohms
Inputs (Digital)	AUDIO 2 (optical): Sensitivity: –
Outputs (Analog)	AUDIO 1 (AUDIO OUT): Voltage: 2 V Impedance: 1 kilohms PHONES: Accepts low- and high-impedance headphones

Super Audio CD/DVD system

Laser	Semiconductor laser (Super Audio CD/DVD: –≯= 650 nm) (CD: –≯= 780 nm) Emission duration: continuous
Frequency response (at 2CH STEREO mode)	
	DVD (PCM): 2 Hz to 22 kHz (±1.0 dB) CD: 2 Hz to 20 kHz (±1.0 dB)
Signal-to-noise ratio	More than 80 dB (AUDIO 1 (AUDIO) connectors only)
Harmonic distortion	Less than 0.03 %

FM tuner section

System	PLL quartz-locked digital synthesizer system
Tuning range	87.5 – 108.0 MHz (50 kHz step)
Antenna	FM wire antenna
Antenna terminals	75 ohms, unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

System	PLL quartz-locked digital synthesizer system
Tuning range	531 – 1,602 kHz (with the interval set at 9 kHz)
Antenna	Loop antenna
Intermediate frequency	450 kHz

Video Section

Outputs	Video: 1 Vp – p, 75 ohms

General

Power requirements	220 – 240 V AC, 50/60 Hz
Power consumption	98 W 2 W (in the standby mode)
Dimensions (approx.)	355 x 70 x 378 mm (w/h/d) incl. projecting parts
Mass (approx.)	4.0 kg
Operating temperature	5°C to 35°C
Operating humidity	5 % to 90 %

— Continued on next page —

COMPACT AV SYSTEM

9-873-961-04
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Sony Corporation
Home Audio Company
Published by Sony Engineering Corporaton

SONY®

Supplied accessories
- Speakers (5)
- Subwoofer (1)
- AM loop antenna (1)
- FM wire antenna (1)
- Speaker cords (5m x 4, 15m x 2)
- Video cord (1)
- Remote commander (remote) RM-SS400 (1)
- R6 (size AA) batteries (2)
- Foot pads (24)
- Speakers-Connection and Installation (card) (1)

Design and specifications are subject to change without notice.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING.
VORSICHT : UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET UND SICHEREITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING : OSYNLING LASERSTRÅLING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.
ADVERSEL : USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VIGYAZAT! : A BURKOLAT NYITÁSAKOR LÁTHATATLAN LÉZERSUGÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!

This caution label is located inside the unit.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing
- Keep the temperature of soldering iron around 270˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

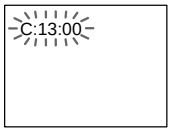
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

Self-diagnosis Function

(When letters/numbers appear in the display)

The self-diagnosis function is activated to prevent the system from malfunctioning. In this case, a five-character service number (e.g., C 13 00) with a combination of a letter and digits appears on the screen and the front panel display. Refer to the following table.



First three characters of the service number	Cause and/or Corrective Action
C 13	The disc is dirty. ➡ Clean the disc with a soft cloth (page 8).
C 31	The disc is not inserted correctly. ➡ Re-insert the disc correctly.
E XX (xx is a number)	To prevent a malfunction, the system has performed the self-diagnosis function. ➡ Contact your nearest Sony dealer or local authorized Sony service facility and give the 5-character service number. Example: E 61 10

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the “S curve check” in “CD section adjustment” and check that the S curve waveform is output several times.

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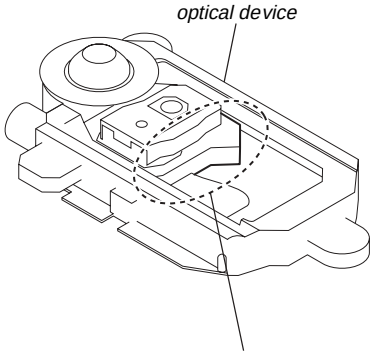
SECTION 1
SERVICING NOTE

CHANGE OF OPTICAL PICK-UP

Optical Pick-up has been replaced from KHM-240AAA (TYPE A) to KHM-270AAA (TYPE B) from the middle of production.
In parallel with that, certain parts of DVD board have been changed.

TYPE A/B DISCRIMINATION



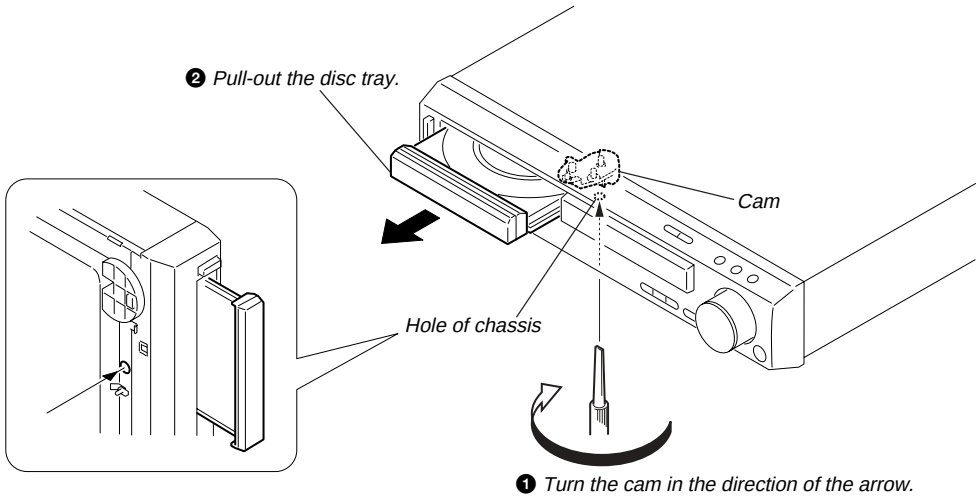
SILVER: KHM-240AAA (TYPE A)
BLACK: KHM-270AAA (TYPE B)

PARTS LIST OF EACH MODEL

DVD BOARD

REF	TYPE A				TYPE B			
	KHM-240AAA				KHM-270AAA			
R076	1-216-837-11 METAL CHIP	22K	5%	1/10W	No Mount			
R077	1-216-815-11 METAL CHIP	330	5%	1/10W	1-216-833-11 METAL CHIP	10K	5%	1/10W
R079	1-216-801-11 METAL CHIP	22	5%	1/10W	1-216-845-11 METAL CHIP	100K	5%	1/10W

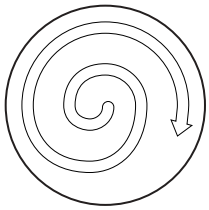
HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF



When removing the disc tray, high torque is necessary to turn the ejection cam on the bottom surface. Therefore, the screw thread is easily damaged. To prevent this damage, turn it carefully.

• CLEANING THE OPTICAL PICK-UP

Note 1: In cleaning the lens, do not apply an excessive force As the optical pick-up is vulnerable, application of excessive force could damage the lens holder.
Note 2: In cleaning, do not use a cleaner other than exclusive cleaning liquid. (KK-91 or isopropyl alcohol)
Note 3: Wipe the obujective lens spirally from center toward outside. (See Figure A)



(Figure A)

• DISC TRAY LOCK

The disc tray lock function for the antitheft of an demonstration disc in the store is equipped.

Setting Procedure :
1. Press the ⏏ button or the ▷ button of the main unit or ⏻ button on the remote commander to turn the set on.
2. Press two buttons of DISPLAY and ⏮ PREV simultaneously for two seconds.
3. The message “LOCKED” is displayed and the tray is locked.

Releasing Procedure :
1. Press two buttons of DISPLAY and ⏮ PREV simultaneously for two seconds again.
2. The message “UNLOCKED” is displayed and the tray is unlocked.

Note : When “LOCKED” is displayed, the tray lock is not released by turning power on/off with the POWER button.

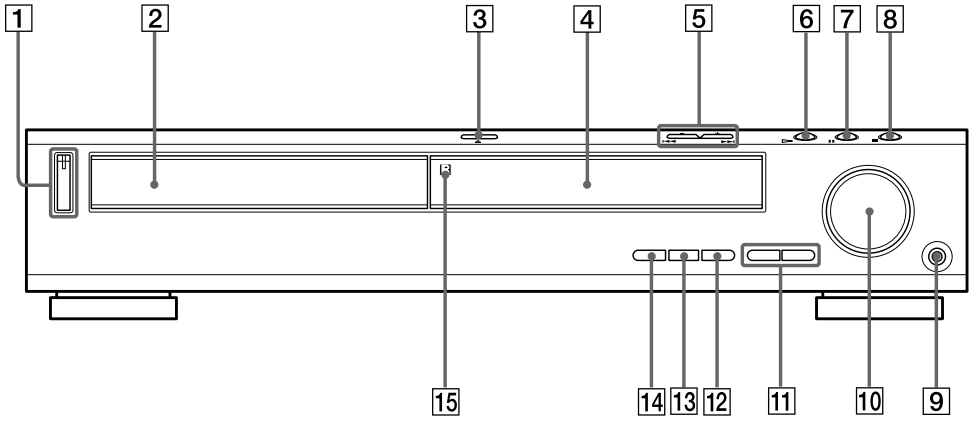
• MOVEMENT CONFIRMATION BY THE REMOTE CONTROLLER OF OTHER MODELS

Signal code of the attached remote controller may vary in the generation of CD/DVD player.
The signal code of FUNCTION, BAND, ST/MONO and MEMORY is different with the remote controller for DAV-S400 and the remote controller for DAV-S550/S880/C770/C990.
Be careful when you confirm by the remote controller of the different model.

Index to Parts and Controls

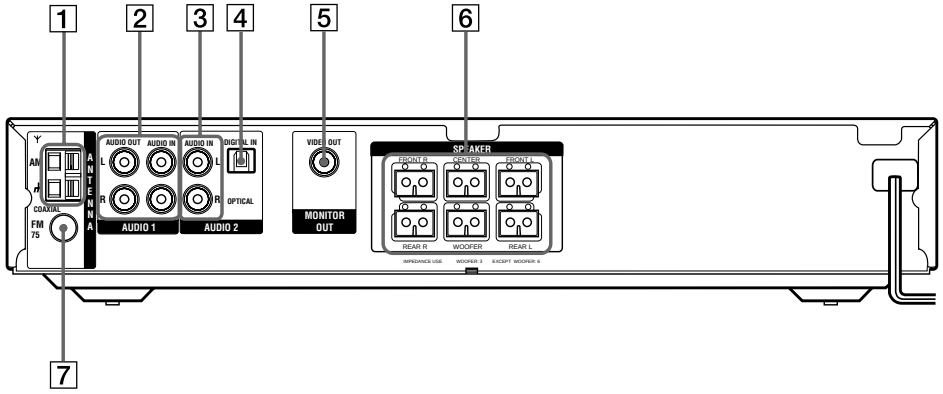
For more information, refer to the pages indicated in parentheses.

Front Panel



1 POWER switch/indicator (30)
2 Disc tray (30)
3 ⏏ OPEN/CLOSE (30)
4 Front panel display (10)
5 ⏮/⏭, PREV/NEXT, PRESET +/– (28, 31)
6 ▷ (play) (30)
7 ❚❚ (pause) (31)
8 ■ (stop) (30)
9 PHONES jack (30)
10 VOLUME control (30)
11 SOUND FIELD +/– (46)
12 DISPLAY (46, 59)
13 BAND (28)
14 FUNCTION (58)
15 (remote sensor) (16)

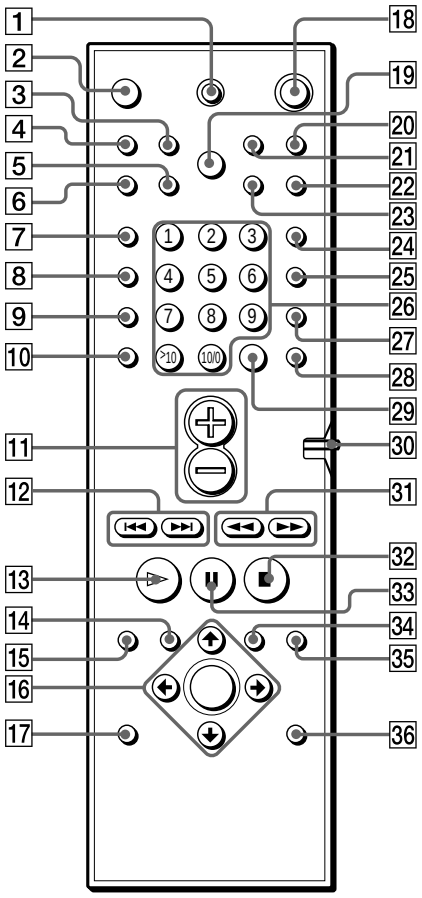
Rear Panel



1 AM antenna (19)
2 AUDIO 1 jacks (21)
3 AUDIO 2 jacks (21)
4 DIGITAL IN (OPTICAL) jack (22)
5 MONITOR OUT jack (21)
6 SPEAKER jacks (17)
7 FM 75Ω COAXIAL antenna jack (20)

This section is extracted from instruction manual.

Remote



1 TV ⏻/I (on/standby) (57)
2 ⏏ OPEN/CLOSE (30)
3 NAME (60)
4 STEREO/MONO (59)
5 MEMORY (28)
6 CLEAR (35)

7 PLAY MODE (34)
8 AUDIO (44)
9 ANGLE (49)
10 SUBTITLE (50)
11 VOL +/– (58)
12 I◄◄ /►►I, PREV/NEXT, TV CH +/–, PRESET +/– (28, 31)

13 ▷ PLAY/SELECT (30)
14 DVD TOP MENU (32)
15 DVD DISPLAY (37)
16 ←/↑/↓/→/ENTER (24)
17 DVD SETUP (54)
18 ⏻ (standby) (30)

19 DIMMER (27)
20 TV/VIDEO (57)
21 REPEAT (37)
22 MUTING (31)
23 TIME (41)
24 FUNCTION (58)

25 BAND (28)
26 Number buttons (32)
27 SOUND FIELD (46)
28 DISPLAY (46, 59)
29 ENTER (57)
30 COMMAND MODE DVD/TV switch (57)

31 I◄◄ /►►I, ◄I/I► SLOW, TUNING +/– (28, 38)
32 ■ STOP (30)
33 ❚❚ PAUSE (31)
34 DVD MENU (33)
35 ↶ RETURN (34)
36 AMP MENU (24)

SECTION 3
DISASSEMBLY

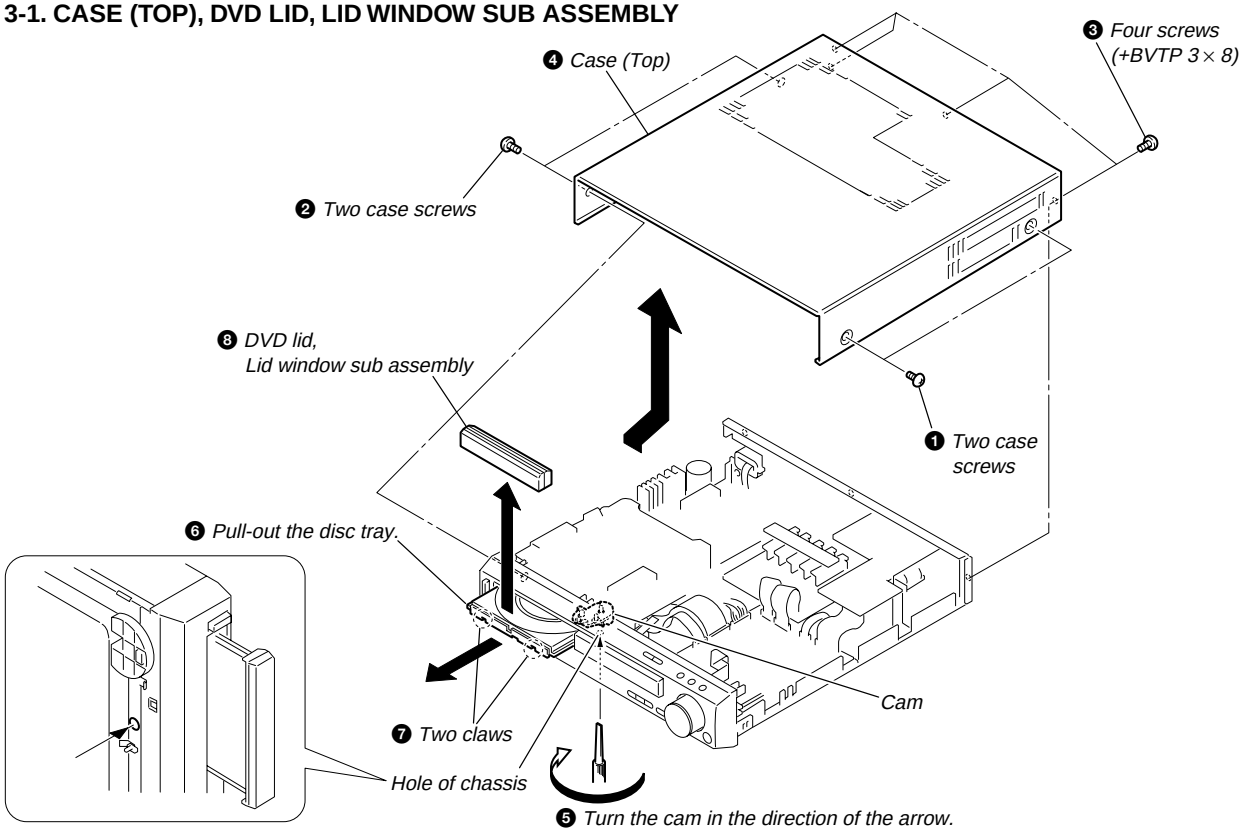
• The equipment can be removed using the following procedure.

Set ➞ Case (Top) ➞ Front panel section

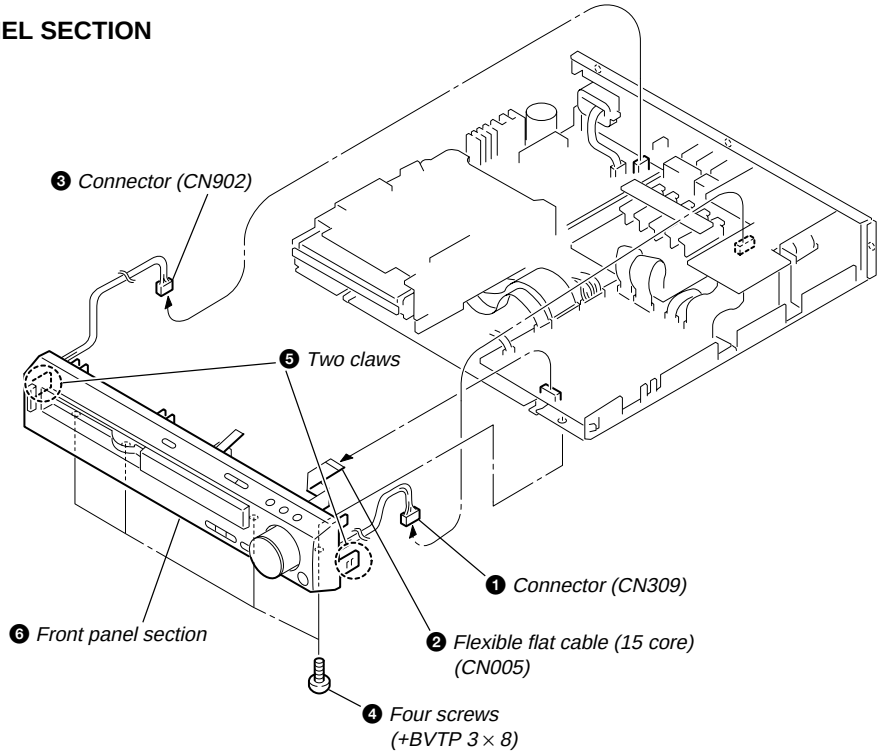
DVD mechanism deck (CDM55C-DVBU8) → *Loading board, Motor (LD) assy (M901)*
RF-240 board
Tray ➞ Optical pick-up (KHM-240 AAA)

Note: Follow the disassembly procedure in the numerical order given.

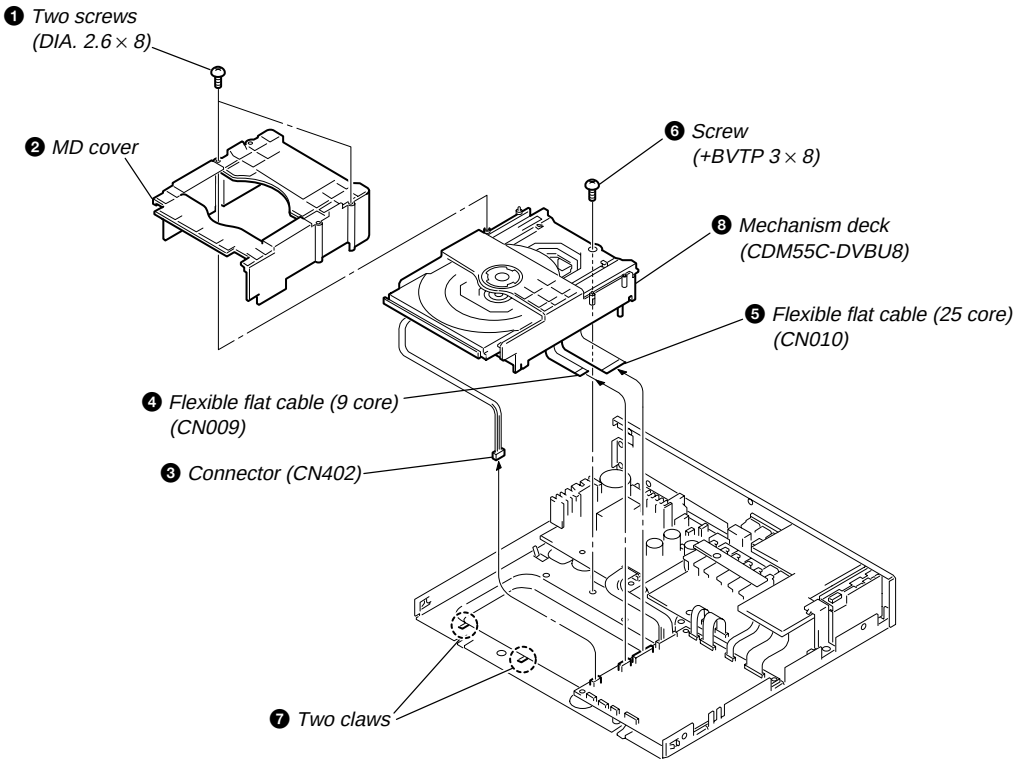
3-1. CASE (TOP), DVD LID, LID WINDOW SUB ASSEMBLY


❸ Four screws (+BVTP 3 × 8)
❹ Case (Top)
❷ Two case screws
❽ DVD lid, Lid window sub assembly
❶ Two case screws
❻ Pull-out the disc tray.
Cam
❼ Two claws
Hole of chassis
❺ Turn the cam in the direction of the arrow.

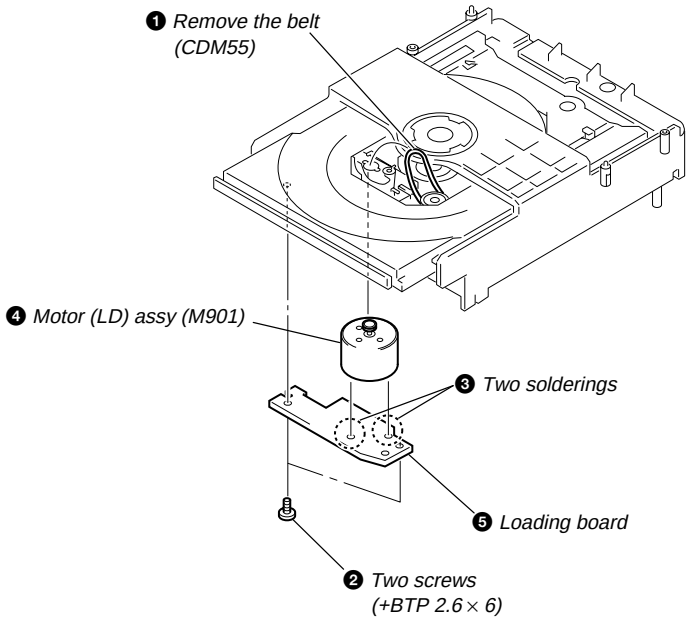
3-2. FRONT PANEL SECTION


❸ Connector (CN902)
❺ Two claws
❶ Connector (CN309)
❻ Front panel section
❷ Flexible flat cable (15 core) (CN005)
❹ Four screws (+BVTP 3 × 8)

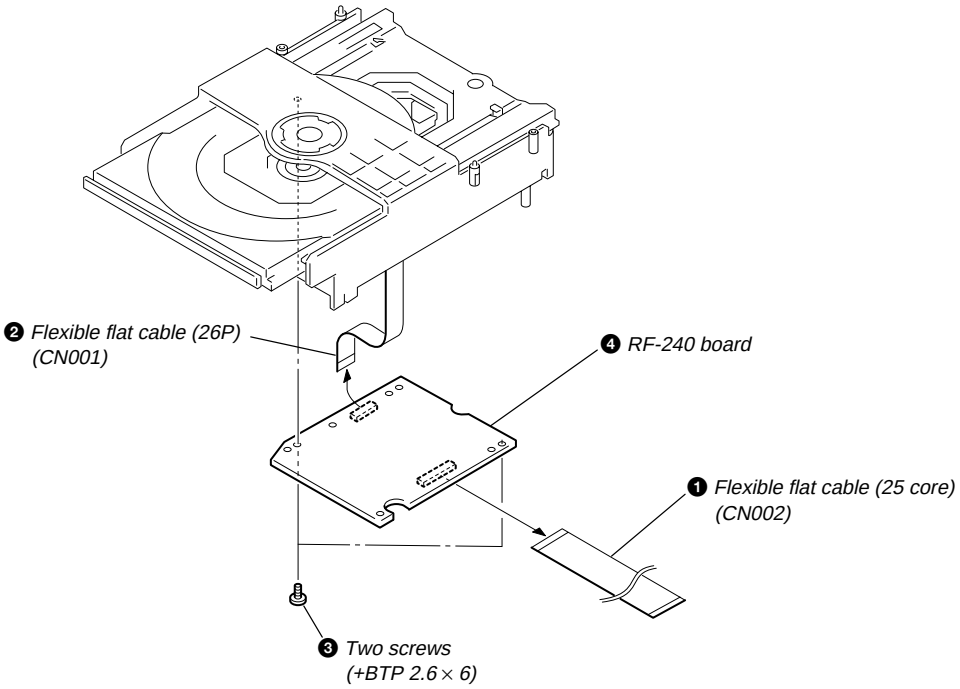
3-3. DVD MECHANISM DECK (CDM55C-DVBU8)



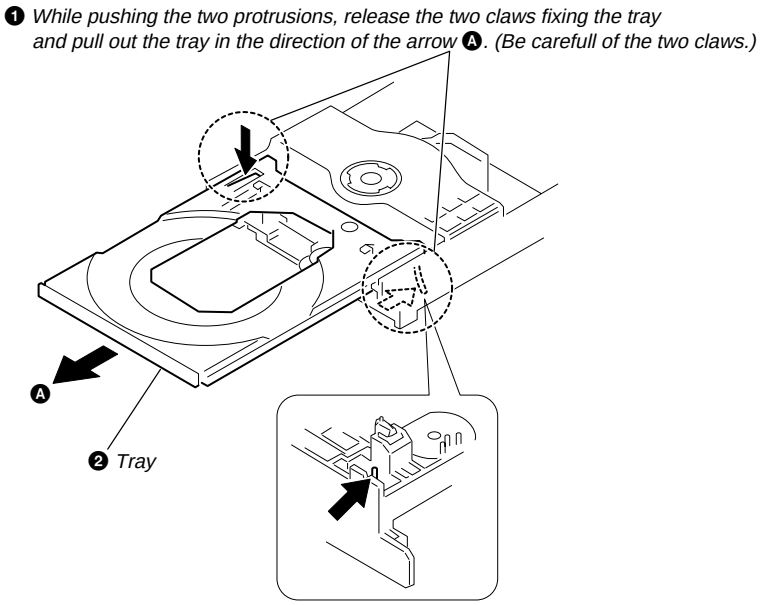
3-4. LOADING BOARD, MOTOR (LD) ASSY (M901)



3-5. RF-240 BOARD

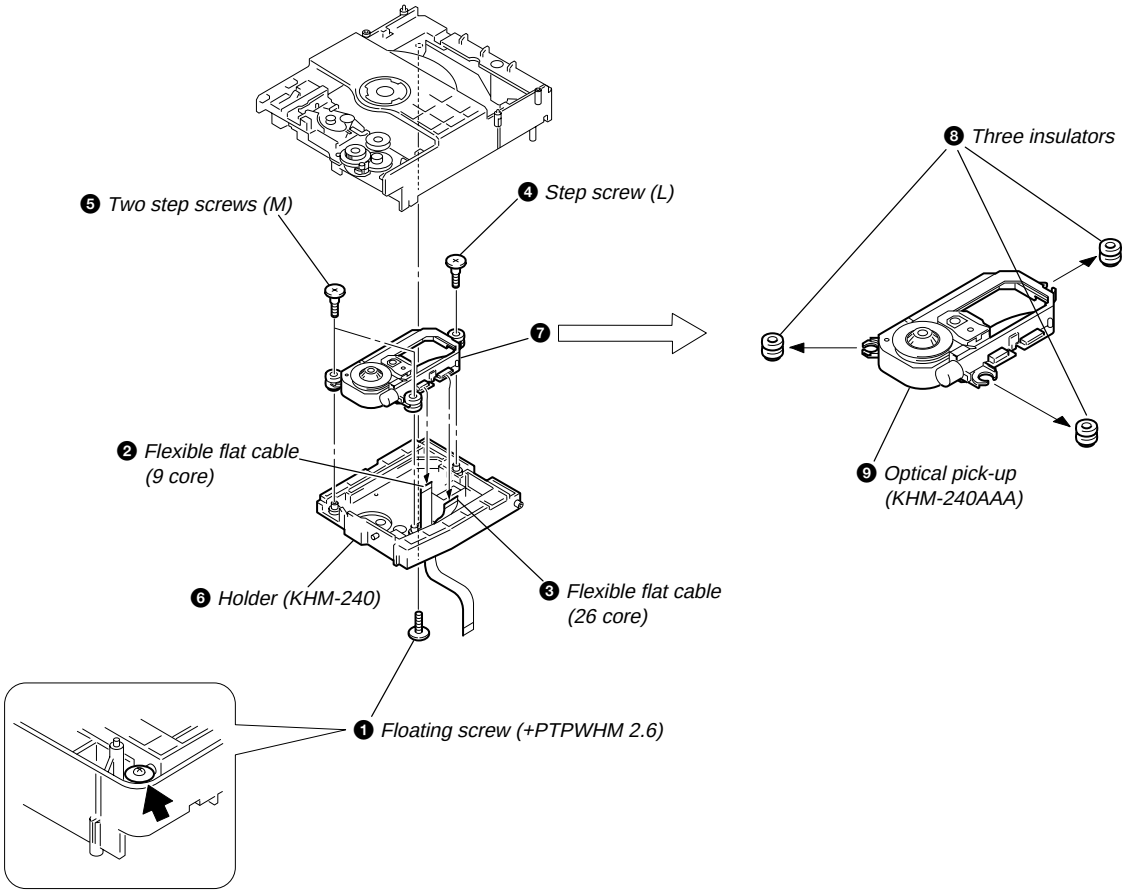


3-6. TRAY


❶ While pushing the two protrusions, release the two claws fixing the tray and pull out the tray in the direction of the arrow Ⓐ. (Be carefull of the two claws.)
Ⓐ
❷ Tray

3-7. OPTICAL PICK-UP (KHM-240AAA)

Please refer to the SERVICING NOTE for the cleaning method of the optical pick-up.


❽ Three insulators
❺ Two step screws (M)
❹ Step screw (L)
❼
❷ Flexible flat cable (9 core)
❾ Optical pick-up (KHM-240AAA)
❻ Holder (KHM-240)
❸ Flexible flat cable (26 core)
❶ Floating screw (+PTPWHM 2.6)

SECTION 4
TEST MODE

4-1. VERSION DISPLAY MODE

Procedure:

1. Press the ⏏ button on the main unit or ⏻ button on the remote commander to turn the set on.
2. Press three buttons of FUNCTION , ⏮ PREV and ⏏ simultaneously for two seconds.
3. The message “VER. 1. ** ” is displayed for a moment.

4-2. JOG TEST MODE

Procedure:

1. Press the ⏏ button on the main unit or ⏻ button on the remote commander to turn the set on.
2. Press three buttons of BAND , ■ and ⏏ simultaneously.
3. The fluorescent indicator displays “JOG 0”. The value “JOG 0” increases like +1, +2, +3... if rotating the VOLUME knob clockwisw,or it decreases like –1, –2, –3,.... if rotating counter-clockwise.
4. To exit from this mode, press the POWER button to turn the set off.

4-3. KEY TEST MODE

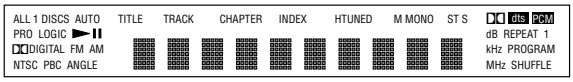
Procedure:

1. Press the ⏏ button on the main unit or ⏻ button on the remote commander to turn the set on.
2. Press three buttons of DISPLAY, ■ and ⏏ simultaneously.
3. The message “KEY NUM 0” is displayed and “0” blinks.
4. Each time a button is pressed, “KEY NUM 0” value increases. However, once a button is pressed, it is no longer taken into account.
5. When all buttons are pressed, “KEY NUM 11” appears and the number blinking is stopped.
6. To exit from this mode, press the POWER button to turn the set off.

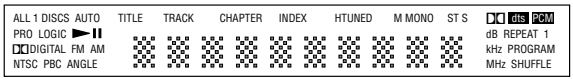
4-4. DISPLAY TEST MODE

Procedure:

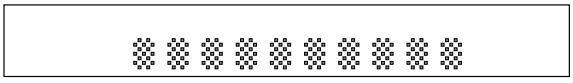
1. Press the ⏏ button on the main unit or ⏻ button on the remote commander to turn the set on.
2. Press three buttons of BAND , ❚❚ and ⏏ simultaneously.
3. All segments are turned on.



4. When the NEXT ▶▶I button is pressed, the display will light up as follows.



5. Press the NEXT ▶▶I button, confirm the display.



6. Press the NEXT ▶▶I button, all segments are turned off.
7. Every pressing of the NEXT ▶▶I button turns on each segments in the same order.
8. To exit from this mode, press the POWER button to turn the set off.

4-5. OSD TEST MODE

Procedure:

1. Press the ⏏ button on the main unit or ⏻ button on the remote commander to turn the set on.
2. Set the FUNCTION to DVD.
3. While pressing two buttons of DISPLAY and ■ simultaneously, turn the VOLUME knob clockwise.
4. The Test Mode Menu is displayed on the TV screen.
5. To execute each function, select the number on the remote commander.
6. See the following section for explanation in detail.
7. To exit from this mode, press the POWER button to turn the set off.

4-6. GENERAL DESCRIPTION

The Test Mode allows you to make diagnosis and adjustment easily using the remote commander and monitor TV. The instructions, diagnostic results, etc. are given on the on-screen display (OSD).

4-7. STARTING TEST MODE

Set the FUNCTION to DVD with the main unit power on. Next, while pushing the ■ button and the DISPLAY button on the main unit at the same time, turn the VOLUME knob to the right to start Test Mode and display the menu shown below on the TV screen. At the bottom of the menu screen, the model name and revision number are displayed.

To execute each function, select the desired menu and press its number on the remote commander. To exit from Test Mode, press the POWER button.

```
Test Mode Menu

0. Syscon Diagnosis
1. Drive Auto Adjustment
2. Drive Manual Operation
3. Mecha Aging
4. Emergency History
5. Version Information
6. Video Level Adjustment
                  Exit: POWER Key
_
Model   : HCX-1030_xx
Revision: 1.xxx
```

4-8. SYSCON DIAGNOSIS

The same contents as board detail check by serial interface can be checked from the remote commander.
On the Test Mode Menu screen, press [0] key on the remote commander, and the following check menu will be displayed.

```
    ### Syscon Diagnosis ###
           Check Menu
0. Quit
1. All
2. Version
3. Peripheral
4. Servo
5. Supply
6. AV Decoder
7. Video
8. Audio
9. DSD Decoder
_
```

0. Quit

Quit the Syscon Diagnosis and return to the Test Mode Menu.

1. All

All items continuous check
This menu checks all diagnostic items continuously. Normally, all items are checked successively one after another automatically unless an error is found, but at a certain item that requires judgment through a visual check to the result, the following screen is displayed for the key entry.

```
    ### Syscon Diagnosis ###

Diag All Check
No. 2 Version

 2-3. ROM Check Sum
Check Sum = 2005



Press NEXT Key to Continue
Press PREV Key to Repeat
_
```

For the ROM Check, the check sum calculated by the Syscon is output, and therefore you must compare it with the specified value for confirmation.
Following the message, press [NEXT] key to go to the next item, or [PREV] key to repeat the same check again. To quit the diagnosis and return to the Check Menu screen, press [■] or [ENTER] key. If an error occurred, the diagnosis is suspended and the error code is displayed as shown below.

```
    ### Syscon Diagnosis ###




 3-3. EEPROM Check
Error 03: EEPROM Write/Reed N
Address    : 00000001
Write Data : 2492
Read Data  : 2490
Press NEXT Key to Continue
Press PREV Key to Repeat
_
```

Press [■] key to quit the diagnosis, or [PREV] key to repeat the same item where an error occurred, or [NEXT] key to continue the check from the item next to faulty item.

Selecting 2 and subsequent items calls the submenu screen of each item.
For example, if “5. Supply” is selected, the following submenu will be displayed.

```
    ### Syscon Diagnosis ###
           Check Menu
         No. 5 Supply
0. Quit
1. All
2. ARP Register Check
3. ARP to RAM Data Bus
4. ARP to RAM Address Bus
5. ARP RAM Check
_
```

0. Quit

Quit the submenu and return to the main menu.

1. All

All submenu items continuous check
This menu checks 2 and subsequent items successively. At the item where visual check is required for judgment or an error occurred, the checking is suspended and the message is output for key entry. Normally, all items are checked successively one after another automatically unless an error is found.

Selecting 2 and subsequent items executes respective menus and outputs the results.
For the contents of each submenu, see “Check Items List”.

General Description of Checking Method

2. Version

(2-2) Revision
ROM revision number is displayed.
Error: Not detected.
The revision number defined in the source file of ROM (At the beginning of mass production, the Flash ROM of IC107 is used, but midway it is replaced by the IC108 OTP ROM. IC107 or IC108) is displayed with four digits.
Below IC107 are all IC107 or IC108.

(2-3) ROM Check Sum
Check sum is calculated.
Error: Not detected.
The 8-bit data are added at addresses 0x000F0000 ~ 0x002EFFFF of ROM (IC107) and the result is displayed with 4-digit hexadecimal number. Error is not detected. Compare the result with the specified value.

(2-4) Model Type
Model code is displayed.
Error: Not detected.
The model code read from EEPROM (IC101) is displayed with 2-digit hexadecimal number.

(2-5) Region
Region code is displayed.
Error: Not detected.
The region code determined from the model code is displayed.

3. Peripheral

(3-2) EEPROM Check
Data write → read, and accord check
Error 03: EEPROM write/read discord
Data 0x9249, 0x2942, 0x4294 are written to addresses 0x00~0xFF of EEPROM (IC101), then read and checked. Before writing, the data are saved, then after checking, they are written to restore the contents of EEPROM.

4. Servo

(4-2) Servo DSP Check
Data write → read, and accord check
Error 12: Read data discord
Data 0x9249, 0x2942, 0x4294 are written to the address 0x602 of RAM in the Servo DSP (IC302), then read and checked.

(4-3) DSP Driver Test
Test signal data → DSP Driver
Error: Not detected.
Caution: Do not conduct this test with a mechanical deck connected.
The maximum voltage is applied to the Servo Driver IC (IC401, IC802). If mechanical deck is connected, the motor and optics could be damaged. Disconnect mechanical deck following the output message, then enter specified 4- or 5-digit number from the remote commander, and press the [ENTER]. The test is conducted only when the input data accord. Check the output level, then press the [NEXT] to finish the test.
This test is skipped if "All" is selected.

Supplement: How to disconnect mechanical deck
Disconnect flat cables connected to the CN009 and CN010 of DVD board. Also, disconnect harness from the CN402.

5. Supply

Caution: Do not conduct this check with a mechanical deck connected.
An access is made to the stream supply and servo control IC (IC302) and external RAM (IC303) using check data. If mechanical deck is connected, the motor and optics could be damaged. This check is also executed by the "All" menu item.

Supplement: How to disconnect mechanical deck
Disconnect flat cables connected to the CN009 and CN010 of DVD board. Also, disconnect harness from the CN402.

(5-2) ARP Register Check
Data write → read, and accord check
Error 08: ARP register write, and read data discord
Data 0x00 to 0xFF are written to the TMAX register (address 0xC6) in ARP (IC302), then they are read and checked.

(5-3) ARP to RAM Data Bus
Data write → read, and accord check
Error 09: ARP ←→ RAM data bus error
Data 0x0001 to 0x8000 where one bit each is set to 1 are written to the address 0 of RAM (IC303) connected to the ARP (IC302) through the bus, then they are read and checked. In case of discord, written bit pattern and read data are displayed. If data where multiple bits are 1 are read, the bits concerned may touch each other. Further, if data where certain bit is always 1 or 0 regardless of written data, the line could be disconnected or shorted.

(5-4) ARP to RAM Address Bus
Data write → other address read discord check
Error 10: ARP → RAM address bus error
Caution: Address and data display in case of an error is different from the display of other diagnosis (described later).
Before starting the test, all addresses of RAM (IC303) are cleared to 0x0000.
First, 0xA55A is written to the address 0x00000, and the address data are read and checked from addresses 0x00001 to 0x80000 while shifting 1 bit each. Next, the data at that address is cleared, and it is written to the address 0x00001, and read and checked in the same manner. This check is repeated up to the address 0x80000 while shifting the address data by 1 bit each.
If data other than 0 is read at the addresses except written address, an error is given because all addresses were already cleared to 0. In this check, the error display pattern is different from that of other diagnosis; read data, written address, and read address are displayed in this order. However, the message uses same template, and accordingly exchange Address and Data when reading. The following display, for example,

```
    ### Syscon Diagnosis ###




 5-4. ARP to RAM Address Bus
Error 10: ARP - RAM Address B
Address    : 0000A55A
Write Data : 00000000
Read Data  : 00080000
Press NEXT Key to Continue
Press PREV Key to Repeat
_
```

shows the data 0xA55A was read from address 0x00080000 though it was written to the address 0x00000000. This implies that these addresses are in the form of shadow. Also, if the read data is not 0xA55A, another error will be present.

(5-5) ARP RAM Check
Data write → read, and accord check
Error 11: ARP RAM read data discord
The program code data stored in ROM are copied to all areas of RAM (IC303) connected to the ARP (IC302) through the bus, then they are read and checked if they accord. If the detail check was selected initially, the data are written to all areas and read, then the same test is conducted once again with the data where all bits are inverted between 1 and 0. If discord is detected, faulty address, written data, and read data are displayed following the error code 11, and the test is suspended.

6. AV Decoder

(6-2) 1930 RAM
Data write → read, and accord check
Error 13: AVD RAM read data discord
The program code data stored in ROM (IC107 or IC108) are copied to all areas oo»RAM (IC504, IC505) connected to the AVD (IC503) through the bus, then they are read and checked if they accord. Further, the same test is conducted once again with the data where all bits are inverted between 1 and 0. If discord is detected, faulty address, written data, and read data are displayed following the error code 13, and the test is suspended.

(6-3) 1930 SP
ROM → AVD RAM → Video OUT
Error: Not detected.
The data including sub picture streams in ROM (IC107 or IC108) are transferred to the RAM (IC504, IC505) in AVD (IC503), and output as video signals from the AVD (IC503). They are output from all video terminals (Composite, Y/C).

7. Video

(7-2) Color Bar
AVD color bar command write → Video OUT
Error: Not detected.
The command is transferred to the AVD, and the color bar signals are output from video terminals.
They are output from all video terminals (Composite, Y/C).

(7-3) Composit Out

(7-4) Y/C Out

(7-6) Component Out

8. Audio

(8-2) ARP → 1930
Error 14 : ARP → 1930 video NG
15 : ARP → 1930 audio NG

(8-3) Test Tone
All channels
2ch Left
2ch Right
Front Left
Front Right
Rear Left
Rear Right
Center
Sub Woofer

9. DSD Decoder

(9-2) 2752 ID Chack

(9-3) 2752 RAM Check

Check Items List

2) Version
(2-2)Revision
(2-3)ROM Check Sum
(2-4)Model Type
(2-5)Region

3) Peripheral
(3-2)EEPROM Check

4) Servo
(4-2)Servo DSP Check
(4-3)DSP Driver Test

5) Supply
(5-2)ARP Register Check
(5-3)ARP to RAM Data Bus
(5-4)ARP to RAM Address Bus
(5-5)ARP RAM Check

6) AV Decoder
(6-2) 1930 RAM
(6-3) 1930 SP

7) Video
(7-2)Color Bar
(7-3)Composit Out
(7-4)Y/C Out
(7-6)Component Out

8) Audio
(8-2)ARP → 1930
(8-3)Test Tone

9) DSD Decoder
(9-2)2752 ID Check
(9-3)2752 RAM Check

Error Codes List
00: Error not detected
01: RAM write/read data discord
02: Gate array NG
03: EEPROM NG
08: ARP register read data discord
09: ARP ←→ RAM data bus error
10: ARP ←→ RAM address bus error
11: ARP RAM read data discord
12: Servo DSP NG
13: 1930 SDRAM NG
14: ARP → 1930 video NG
15: ARP → 1930 audio NG
16: 1910 UCODE download NG
17: System call error (function not supported)
18: System call error (parameter error)
19: System call error (illegal ID number)
20: System call error (time out)
90: Error occurred
91: User verification NG
92: Diagnosis cancelled

4-9. DRIVE AUTO ADJUSTMENT

On the Test Mode Menu screen, press [1] key on the remote commander, and the drive auto adjustment menu will be displayed.

```
   ## Drive Auto Adjustment ##

         Adjustment Menu

0. ALL
1. DVD-SL
2. CD
3. DVD-DL
4. LCD



                    Exit: RETURN
```

Normally, [0] is selected to adjust DVD (single layer), CD, DVD (dual layer), and SACD in this order. But, individual items can be adjusted for the case where adjustment is suspended due to an error. In this mode, the adjustment can be made easily through the operation following the message displayed on the screen.
The disc used for adjustment must be the one specified for adjustment. However, for SACD disc, use the player with initial data if the disc is not available.

0. ALL

Select [0] and press [ENTER] key, and the servo set data in EEPROM will be initialized. Then, 1. DVD-SL disc, 2. CD disc, 3. DVD-DL disc, and 4. SACD disc are adjusted in this order. Each time one disc was adjusted, it is ejected. Replace it with the specified disc following the message. Though the message to confirm whether discs other than SACD disc are adjusted is not displayed, you can finish the adjustment if pressing the ■ button. During adjustment of each disc, the measurement for disc type judgment is made. As automatic adjustment does not judge the disc type unlike conventional models, take care not to insert wrong type discs. Also, do not give a shock during adjustment.

1. DVD-SL (single layer)

Select [1], insert DVD single layer disc, and press [ENTER] key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM.

DVD Single Layer Disc Adjustment Steps
1. SLED TILT Reset
2. Disc Check Memory SL
3. Wait 300 msec
4. Set Disc Type SL
5. LD ON
6. Spdl Start
7. Wait 1 sec
8. Focus Servo ON 0
9. Auto Track Offset Adjust
10. CLVA ON
11. Wait 500 msec
12. Tracking ON
13. Wait 1 sec
14. Sled ON
15. Check CLV Lock
16. Auto LFO Adjust
17. Auto Focus Offset Adjust
18. Auto Tilt Position Adjust
19. Auto Focus Gain Adjust
20. Auto Focus Offset Adjust
21. EQ Boost Adjust
22. Auto LFO Adjust
23. Auto Track Gain Adjust, Search Check

Search Check
24. 32Tj Fwd
25. 32Tj Rev
26. 500Tj Fwd
27. 500Tj Rev
28. All Servo Stop
29. Eep Copy Loop Filter Offset

2. CD

Select [2], insert CD disc, and press [ENTER] key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM.

CD Adjustment Steps
1. Sled Tilt Rest
2. Disc Check Memory CD
3. Wait 500 msec
4. Set Disc Type CD
5. LD ON
6. Spdl Start
7. Wait 500 msec
8. Focus Servo ON 0
9. Auto Track Offset Adjust
10. CLVA ON
11. Wait 500 msec
12. Tracking ON
13. (TC Display Start)
14. Wait 1 sec
15. Jitter Display Start
16. Sled ON
17. Check CLV ON
18. Auto LFO Adjust
19. Auto Focus Offset Adjust
20. No Adjustment
21. Auto Focus Gain Adjust
22. Auto Focus Offset Adjust
23. Eq Boost Adjust
24. Auto LFO Adjust
25. Auto Track Gain Adjust, Search Check

Search Check
26. 32Tj Fwd
27. 32Tj Rev
28. 500Tj Fwd
29. 500Tj Rev
30. All Servo Stop

3. DVD-DL (dual layer)

Select [3], insert DVD dual layer disc, and press [ENTER] key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM.

DVD Dual Layer Disc Adjustment Steps
1. Sled Tilt Reset
2. Disc Check Memory DL
3. Wait 500 msec
4. Set Disc Type DL
5. LD ON
6. Spdl Start

Layer 1 Adjustment
7. Wait 1 sec
8. Focus Servo ON 0
9. Auto Track Offset Adjust
10. Clva ON
11. Wait 500 msec
12. Tracking ON
13. Wait 500 msec
14. Sled ON
15. Check CLV Lock
16. Auto Loop Filter Offset Auto Focus Adjust
17. No Adjustment
18. Auto Focus Gain Adjust
19. Auto Focus Offset Adjust
20. Eq Boost Adjust
21. Auto Loop Filter Offset
22. Auto Track Gain Adjust, Search Check

Search Check
23. 32Tj Fwd
24. 32Tj Rev
25. 500Tj Fwd
26. 500Tj Rev, Layer 0 Adjust

Layer 0 Adjustment
27. Fj (L1 -> L0)
28. Auto Track Offset Adjust L0
29. Clva ON
30. Wait 500 msec
31. Tracking ON
32. Wait 500 msec
33. Sled ON
34. Check CLV Lock
35. Auto Focus Filter Offset
36. Auto Focus Adjust
37. No Adjustment
38. Auto Focus Gain Adjust
39. Auto Focus Offset Adjust
40. Eq Boost Adjust
41. Auto Loop Filter Offset
42. Auto Track Gain Adjust, Search Check

Search Check
43. 32Tj Fwd
44. 32Tj Rev
45. 500Tj fwd
46. 500Tj Rev, Layer Jump Check

Layer Jump Check
47. Lj (L0 -> L1)
48. Lj (L1 -> L0)
49. All Servo Stop

4. LCD/SACD

Select [4], insert SACD disc, and press [ENTER] key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM. However, if SACD disc is not available, use the player with initial data, skipping the SACD adjustment. In this case, you can finish the adjustment if pressing the [■] button.

SACD Adjustment Steps
1. Sled Tilt Reset
2. Set Disc Type CD
3. LD ON
4. Spdl Start
5. Wait 500 msec
6. Focus Servo ON 0
7. Auto track Offset Adjust
8. No Adjustment
9. CLVA ON
10. Wait 500 msec
11. Tracking ON
12. Wait 1 sec
13. Sled ON
14. Check CLV ON
15. Auto Focus Offset Adjust
17. No Adjustment
18. Auto Focus Gain Adjust
19. Auto Focus Offset Adjust
20. Eq Boost Adjust
21. Auto LFO Adjust
22. Auto Track Gain Adjust

Search Check
23. 32Tj Fwd
24. 32Tj Rev
25. 500Tj Fwd
26. 500Tj Rev

27. All Servo Stop

4-10. DRIVE MANUAL OPERATION

On the Test Mode Menu screen, select [2], and the manual operation menu will be displayed. For the manual operation, each servo on/off control and adjustment can be executed manually.

```
  ## Drive Manual Operation ##

         Operation Menu
1. Disc type
2. Servo Control
3. Track/Layer Jump
4. Manual Adjustment
5. Auto Adjustment
6. Memory Check
7. Sacd Water Mark

0. Disc Check Memory
_
                Exit: Return
```

In using the manual operation menu, take care of the following points. These commands do not provide protection, thus requiring correct operation. The sector address or time code field is displayed when a disc is loaded.

1. Set correctly the disc type to be used on the Disc Type screen.
   The disc type must be set after a disc was loaded.
   The set disc type is cleared when the tray is opened.
2. After power ON, if the Drive Manual Operation was selected, first perform “Reset SLED TILT” by opening 1. Disc Type screen.
3. In case of an alarm, immediately press the ■ button to stop the servo operation, and turn the power OFF.

Basic operation (controllable from front panel or remote commander)

POWER	Power OFF
■	Servo stop
OPEN/CLOSE	Stop+Eject/Loading
RETURN *1	Return to Operation Menu or Test Mode Menu
NEXT, PREV *1	Transition between sub modes of menu
1 to 9, 0 *1	Selection of menu items
Cursor UP/DOWN*1	Increase/Decrease in manually adjusted value

*1: Remote comander only

0. Disc Check Memory

```
          Disc Check



1. SL Disc Check
2. CD Disc Check
3. DL Disc Check



0. Reset SLED TILT
_
```

On this screen, the mirror time is measured to judge the disc and it is written to the EEPROM. First load DVD SL disc and press 1, next load CD disc and press 2, and finally load DVD DL disc and press 3.
The adjustment must be executed more than once after default data were written. External vibration or shock to the player must not be given. Reference value for DVD is from 10 to 20, and for CD, from 28 to 4F.
Check that the value of CD is larger than that of DVD.
When those values are beyond a range perform this adjustment again.
From this screen, you can go to another mode by pressing NEXT or PREV key, but you cannot enter this mode from another mode. You can enter this mode from the Operation Menu screen only.

1. Disc Type

```
          Disc Type
1. Disc Type Auto Check
2. DVD SL   12 cm
3. DVD DL   12 cm
4. CD       12cm
5. LCD      12 cm
6. DVD SL   8 cm
7. DVD DL   8 cm
8. CD       8 cm
9. LCD      8 cm
0. Reset SLED TILT
-- SA. ------ SI. --    EMG. 00
DVD SL12cm
```

On this screen, select the disc type. To select the disc type, press the number of the loaded disc. The selected disc type is displayed at the bottom. Selecting 1 automatically selects and displays the disc type. In case of wrong display, retry “Disc Check Memory”. Also, opening the tray causes the set disc type to be cleared. In this case, set the disc type again after loading.
In performing manual operation, the disc type must be set.
Once the disc type has been selected, the sector address or time code display field will appear as shown below. These values are displayed when PLL is locked.

```
          Disc Type
1. Disc Type Auto Check
2. DVD SL   12 cm
3. DVD DL   12 cm
4. CD       12cm
5. LCD      12 cm
6. DVD SL   8 cm
7. DVD DL   8 cm
8. CD       8 cm
9. LCD      8 cm
0. Reset SLED TILT
        SA.      SI.    EMG. 00
DVD SL 12 cm
```

Display when DVD SL 12cm disc was selected

```
          Disc Type
1. Disc Type Auto Check
2. DVD SL   12 cm
3. DVD DL   12 cm
4. CD       12cm
5. LCD      12 cm
6. DVD SL   8 cm
7. DVD DL   8 cm
8. CD       8 cm
9. LCD      8 cm
0. Reset SLED TILT
        TC. ——: ——: —— EMG. 00
CD   12 cm
```

Display when CD 12cm disc was selected

0 Reset SLED TILT	Reset the Sled and Tilt to initial position.
1 Disk Type Check	Judge automatically the loaded disc. As the judged result is displayed at the bottom of screen, make sure that it is correct. If Disc Check Memory menu has not been executed after EEPROM default setting, the disc type cannot be judged. In this case, return to the initial menu and make a check for three types of discs (SL, DL, CD).
2 to 9	Select the loaded disc. The adjusted value is written to the address of selected disc. No further entry is necessary if 1 was selected.

2. Servo Control

```
          Servo Control
1. LD         Off R.Sled FWD
2. SP         Off L.Sled REV
3. Focus      Off
4. TRK.       Off
5. Sled       Off
6. CLVA       Off
7. FCS. Srch Off


0. Reset SLED TILT
        SA. ———— SI. —— EMG. 00
DVD SL 12 cm
```

On this screen, the servo on/off control necessary for replay is executed. Normally, turn on each servo from 1 sequentially and when CLVA is turned on, the usual trace mode becomes active. In the trace mode, DVD sector address or CD time code is displayed. This is not displayed where the spindle is not locked.
The spindle could run overriding the control if the spindle system is faulty or RF is not present. In such a case, do not operate CLVA.

[0] Reset SLED TILT	Reset the Sled and Tilt to initial position.
[1] LD	Turn ON/OFF the laser.
[2] SP	Turn ON/OFF the spindle.
[3] Focus	Search the focus and turn on the focus.
[4] TRK	Turn ON/OFF the tracking servo.
[5] Sled	Turn ON/OFF the sled servo.
[6] CLVA	Turn ON/OFF normal servo of spindle servo.
[7] FCS. Srch	Apply same voltage as that of focus search to the focus drive to check the focus drive system.
[→] Sled FWD	Move the sled outward. Perform this operation with the tracking servo turned off.
[←] Sled REV	Move the sled inward. Perform this operation with the tracking servo turned off.
[↑] Tilt UP	Move the tilt upward.
[↓] Tilt DOWN	Move the tilt downward.

The following menus are normally not used.

3. Track/Layer Jump

4. Manual Adjustment

5. Auto Adjustment

The persons who do not know well about these menus should not use them.

6. Memory Check

```
EEPROM Data1
                    -- DL --
              CD LCD   SL  L0  L1
Focus Gain    xx xx    xx  xx  xx
TRK. Gain     xx xx    xx  xx  xx
FCS Balance   xx xx    xx  xx  xx
Focus Bias    xx xx    xx  xx  xx
TRV. Offset   xx xx    xx  xx  xx
L. F. Offset  xx xx    xx  xx  xx
EQ Boost      xx xx    xx  xx  xx
Mirror Time   xx xx    xx  xx  xx
_DOWN: Next Data
CLEAR: Default Set      page.1/2
```

```
EEPROM Data1
                    -- DL --
              CD LCD   SL  L0  L1
RF Jitter     xx --    xx  xx  xx
RF Level      xx --    xx  --  --
FE Level      xx --    xx  --  --
FE Balance    xx --    xx  --  --
TRV. Level    xx --    xx  --  --
Analog FRSW   xx xx    xx  xx  xx
PLL DacGain   xx xx    xx  xx  xx
_
 UP  : Prev Data
CLEAR: Default Set      page.2/2
```

This screen displays current servo adjusted data stored in the EEPROM. Though adjusted data can be initialized with the [CLEAR] key, they cannot be restored after initialization.
So, before clearing, make a note of the adjusted data.
For reference, the drive has been designed so that the gain center value is 20 and offset value is 80. Other values will be in a range of 10 to 80. If extreme value such as 00 or FF is set, adjustment will be faulty. In such a case, check for disc scratch or cable disconnection, then perform adjustment again.

7. Sacd Water Mark

4-11. MECHA AGING

```
      ### Mecha Aging ###



Press OPEN Key



Abort: STOP key
```

On the Test Mode Menu Screen, selecting [3] executes the aging of the mechanism. Start aging with PLAY. During aging, the repeat cycle is displayed. Aging can be aborted at any time by pressing the [■] key. After the operation is stopped, press the [■] key or [RETURN] key again to return to the Test Mode Menu. SEARCH Aging is only for a CD.

4-12. EMERGENCY HISTORY

```
      ### EMG. History ###

Laser Hours     CD   xxxxxxxh
                DVD  xxxxxxxh

1. 00 00 00 00  00 00 00 00
   00 00 00 00  00 00 00 00

2. 00 00 00 00  00 00 00 00
   00 00 00 00  00 00 00 00

Select: 1 – 9   Scroll: UP/DOWN
(1: Last EMG.)  Exit: RETURN
```

On the Test Mode Menu screen, selecting [4] displays the information such as servo emergency history. The history information from last 1 up to 10 can be scrolled with [↑] key or [↓] key. Also, specific information can be displayed by directly entering that number with ten keys.

The upper two lines display the laser ON total hours. Data below minutes are omitted.

Clearing History Information

Clearing laser hours

◎ Press [DISPLAY] and [CLEAR] keys in this order.
Both CD and DVD data are cleared.

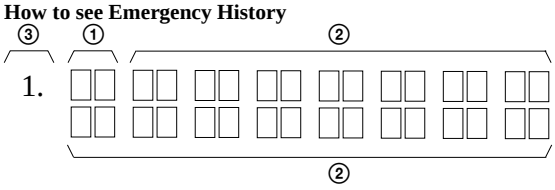
Clearing emergency history

◎ Press [DVD TOP MENU] and [CLEAR] keys in this order.

Initializing set up data

◎ Press [DVD MENU] and [CLEAR] keys in this order.
The data have been initialized when "Set Up Initialized" message is displayed. The EMG. History screen will be restored soon.

How to see Emergency History



① : Emergency Code
② : Don't Care
These codes are used for verification of software designing.
③ : Historical order 1 to 9

Emergency Codes List

10: Communication to IC001 (RF-240 board) failed.
11: Each servo for focus, tracking, and spindle is unlocked.
12: Communication to EEPROM, IC101 (DVD board) failed.
13: Writing of hours meter data to EEPROM, IC101 (DVD board) failed.
14: Communication to Servo DSP IC302 (DVD board) failed, or Servo DSP is faulty.
20: Initialization of tilt servo and sled servo failed. They are not placed in the initial position.
21: Tilt servo operation error
22: Syscon made a request to move the tilt servo to wrong position.
23: Sled servo operation error
24: Syscon made a request to move the sled servo to wrong position.
30: Tracking balance adjustment error
31: Tracking gain adjustment error
32: Focus balance adjustment error
33: Focus bias adjustment error
34: Focus gain adjustment error
35: Tilt servo adjustment error
36: RF equalizer adjustment error
37: RF group delay adjustment error
38: Jitter value after adaptive servo operation is too large.
40: Focus servo does not operate.
41: With a dual layer (DL) disc, focus jump failed.50: CLV (spindle) servo does not operate.
51: Spindle does not stop.
60: With a DVD disc, Syscon made a request to seek nonexistent address.
61: With a CD disc, Syscon made a request to seek nonexistent address.
62: With a CD disc, Syscon made a request to seek nonexistent track No. and index No.
63: With a DVD disc, seeking of target address failed.
64: With a CD disc, seeking of target address failed.
65: With a CD disc, seeking of target index failed.
70: With a DVD disc, physical information data could not be read.
71: With a CD disc, TOC data could not be read.
80: Disc type judgment failed.
81: As disc type judgment failed, retry was repeated.
82: As disc type judgment failed, a measurement error occurred.
83: Disc type could not be judged within the specified time.
84: Illegal command code was received from Syscon.
85: Illegal command was received from Syscon.

4-13. VERSION INFORMATION

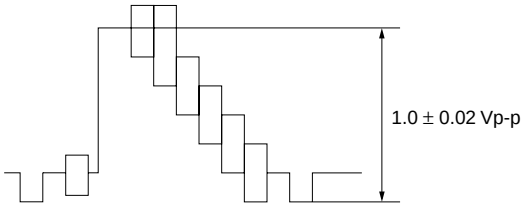
```
   ## Version Information ##

IF con.    Ver: x. xxx (xxxx)
           Group    00

SYScon.    Ver: x. xxx (xxxx)
           Model    xx
           Region   0x


Servo DSP Ver:X.XXX
OPT Type:2 Laser
                    Exit: RETURN
```

On the Test Mode Menu screen, selecting [5] displays the ROM version and region code.
The parenthesized hexadecimal number in version field is checksum value of ROM.

4-14. VIDEO LEVEL ADJUSTMENT

On the Test Mode Menu screen, selecting [6] displays color bars for video level adjustment. During display of color bars, OSD disappears but the menu screen will be restored if pressing any key.

Measurement point : MONITOR OUT VIDEO
(75 Ω terminating resistance)
Measuring instrument : Oscilloscope
Adjustment device : RV501 on DIGITAL board
Specified value : 1.0 ± 0.02 Vpp



SECTION 5
ELECTRICAL ADJUSTMENT

In making adjustment, refer to 5-2. Adjustment Related Parts Arrangement.

RE-ADJUSTMENT OF THE SERVO CIRCUIT
The re-adjustment of the servo circuit is necessary when the part which relates to the servo circuit is replaced.
Referring to "4-9. DRIVE AUTO ADJUSTMENT" (see page 15), Choose ALL and do the re-adjustment of each item of DVD-SL, CD and DVD-DL.

THE PART THAT THE RE-ADJUSTMENT OF THE SERVO CIRCUIT IS NECESSARY
6. Optical pick-up
7. RF AMP (IC001)
8. DSP IC (IC302)
9. Motor driver IC (IC401)
10. EEPROM (IC303)

Note: During diagnostic check, the characters and color bars can be seen only with the NTSC monitor. Therefore, for diagnostic check, use the monitor that supports both NTSC and PAL modes

This section describes procedures and instructions necessary for adjusting electrical circuits in this set.

Instruments required:
1) Color monitor TV
2) Oscilloscope 1 or 2 phenomena, band width over 100 MHz, with delay mode
3) Frequency counter (over 8 digits)
4) Digital voltmeter
5) Standard commander
   * RM-SS400 (1-477-332-11)
6) DVD reference disc
   HLX-501 (J-6090-071-A) (dual layer)
   HLX-503 (J-6090-069-A) (single layer)
   HLX-504 (J-6090-088-A) (single layer)
   HLX-505 (J-6090-089-A) (dual layer)
7) SACD reference disc
   HLXA-509 (J-6090-090-A)

* Use only the designated remote control when adjusting this system component.

5-1. ADJUSTMENT OF VIDEO SYSTEM

1. Video Level Adjustment (DVD BOARD)
<Purpose>
This adjustment is made to satisfy the NTSC standard, and if not adjusted correctly, the brightness will be too large or small.

Mode	Video level adjustment in test mode
Signal	Color bars
Test point	MONITOR OUT (VIDEO) connector (75 K terminated)
Instrument	Oscilloscope
Adjusting element	RV501
Specification	1.0 ± 0.02 Vp-p

Adjusting method:
1) In the test mode initial menu "6" Video Level Adjustment, set so that color bars are generated.
2) Adjust the RV501 to attain 1.0 ± 0.02 Vp-p.

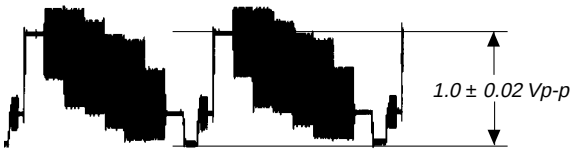
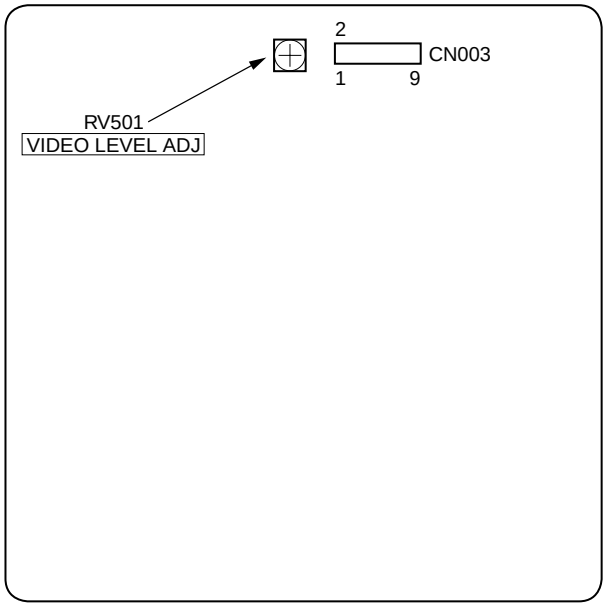


Figure 5-1

5-2. ADJUSTMENT RELATED PARTS ARRANGEMENT

DVD BOARD (SIDE A)



SECTION 6
DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- ▬▬ : B+ Line.
- ▬ ▬ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  RF-240 board section
  no mark: DVD STOP
  < >: DVD PLAY
  * : Inpossible to measure
  Other board section
  no mark: FM
  < >: DVD PLAY
  * : Inpossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
  no mark : STOP
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ⇨ : CD
  ⇨ : DVD
  ⇨ : VIDEO

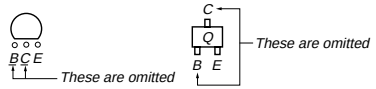
For printed wiring boards.

Note:
- o——— : parts extracted from the component side.
- ○ : Through hole.
- ▭ : Pattern from the side which enables seeing.

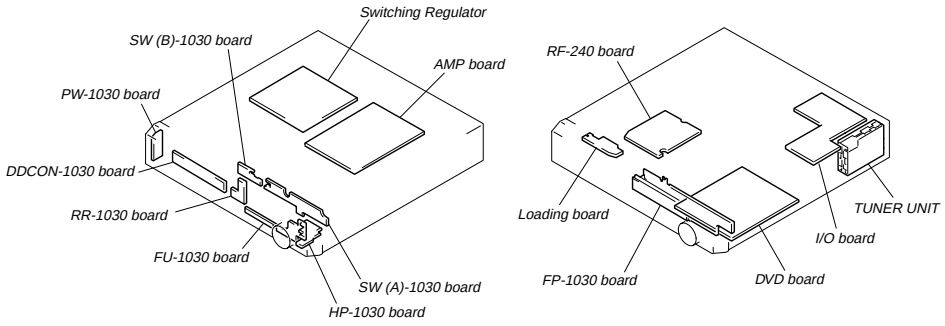
(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component A)	Parts on the parts face side seen from the parts face are indicated.

- **Indication of transistor**

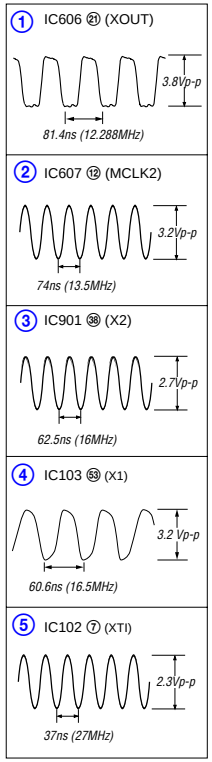


6-1. CIRCUIT BOARD LOCATION

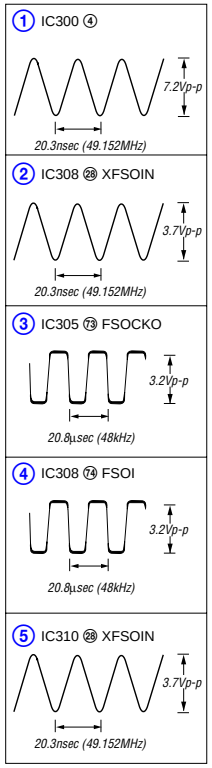


WAVEFORMS

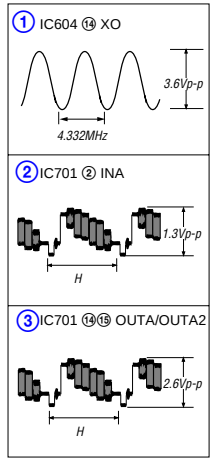
– DVD BOARD –



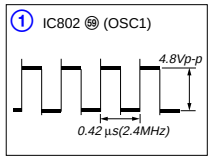
– AMP BOARD –



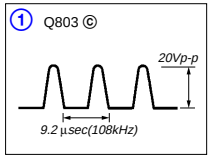
– I/O BOARD –



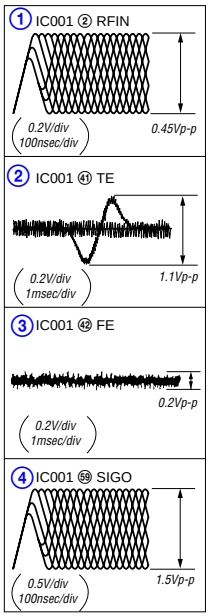
– FP-1030 BOARD –



– DDCOM-1030 BOARD –

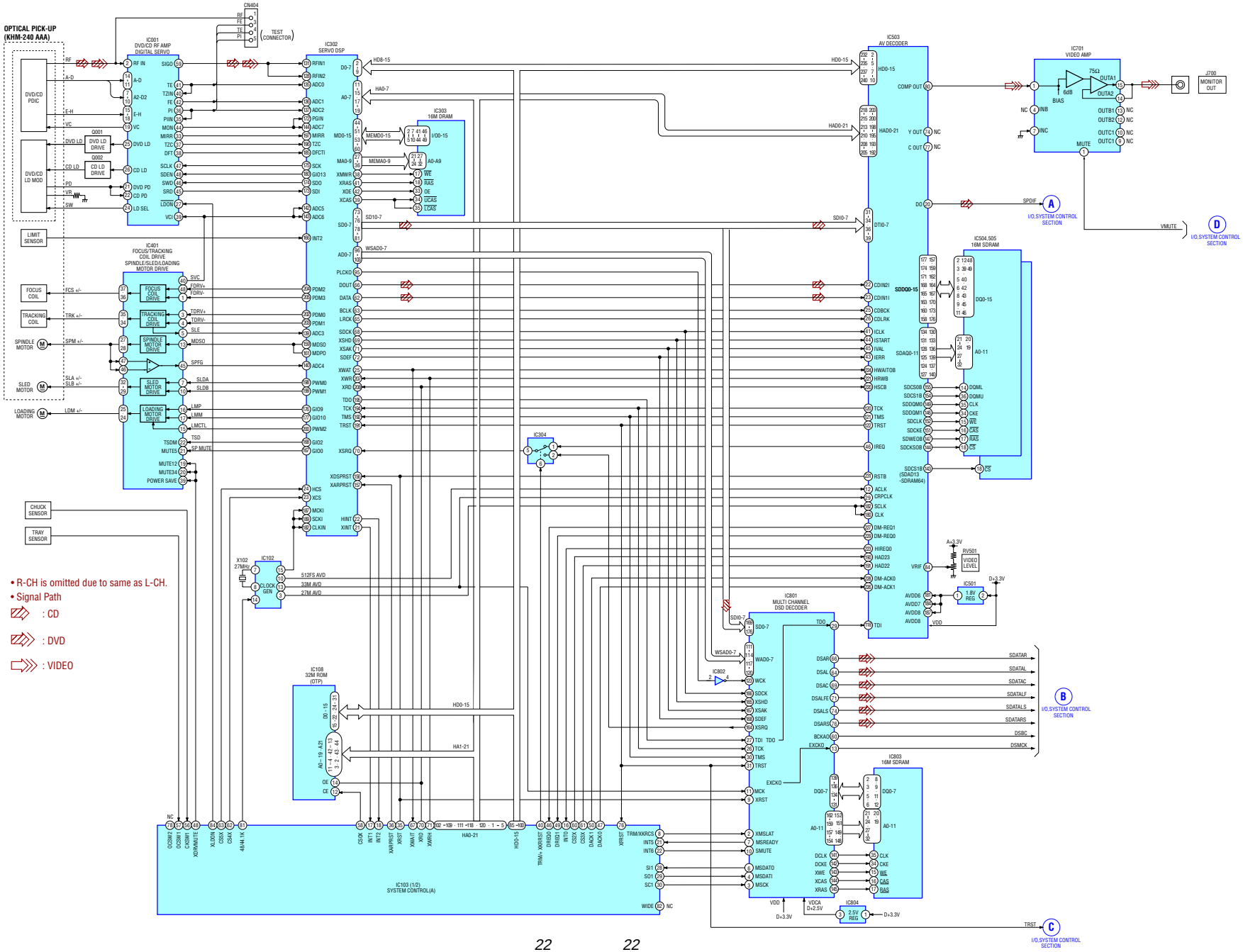


– RF-240 BOARD –

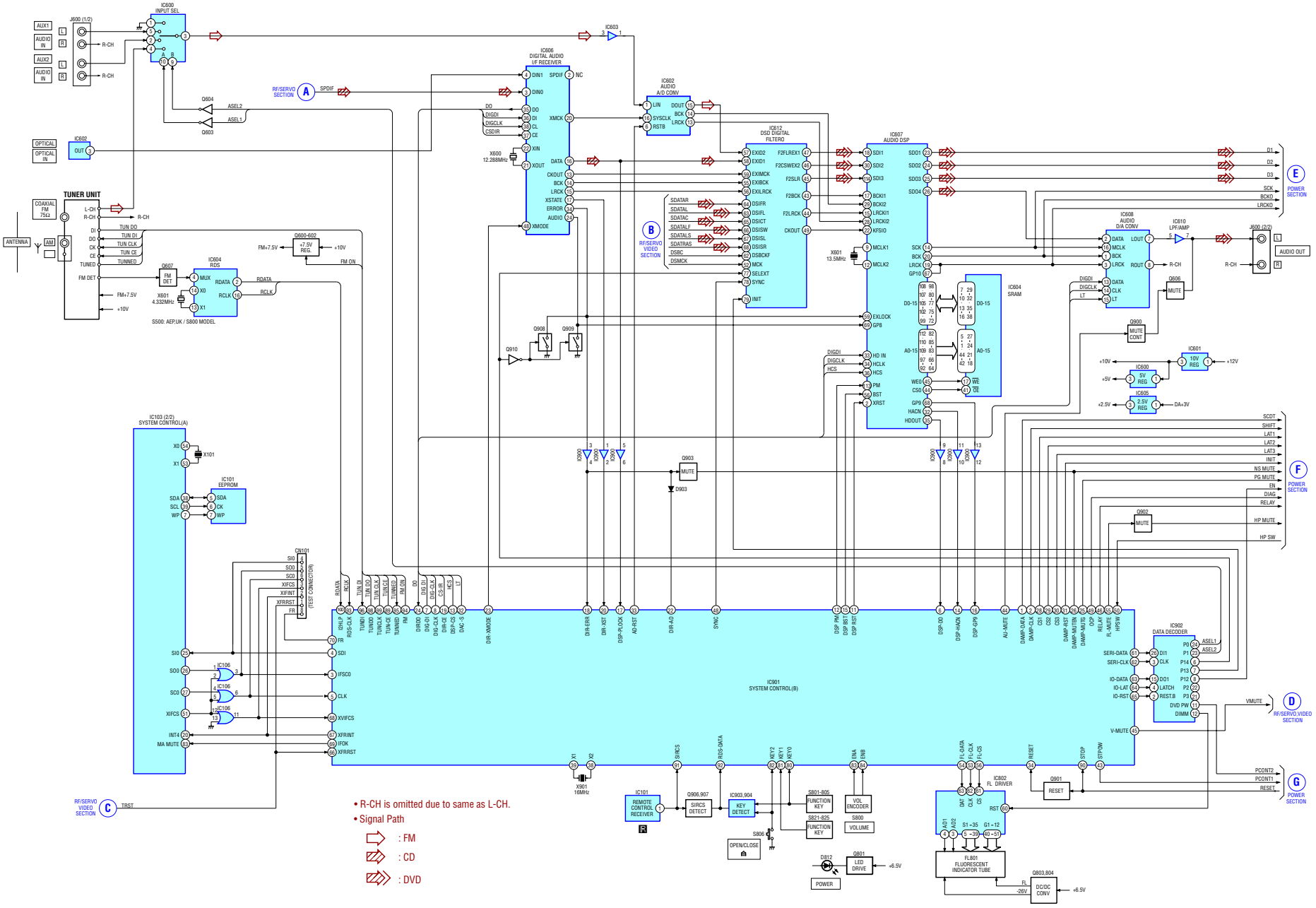


21

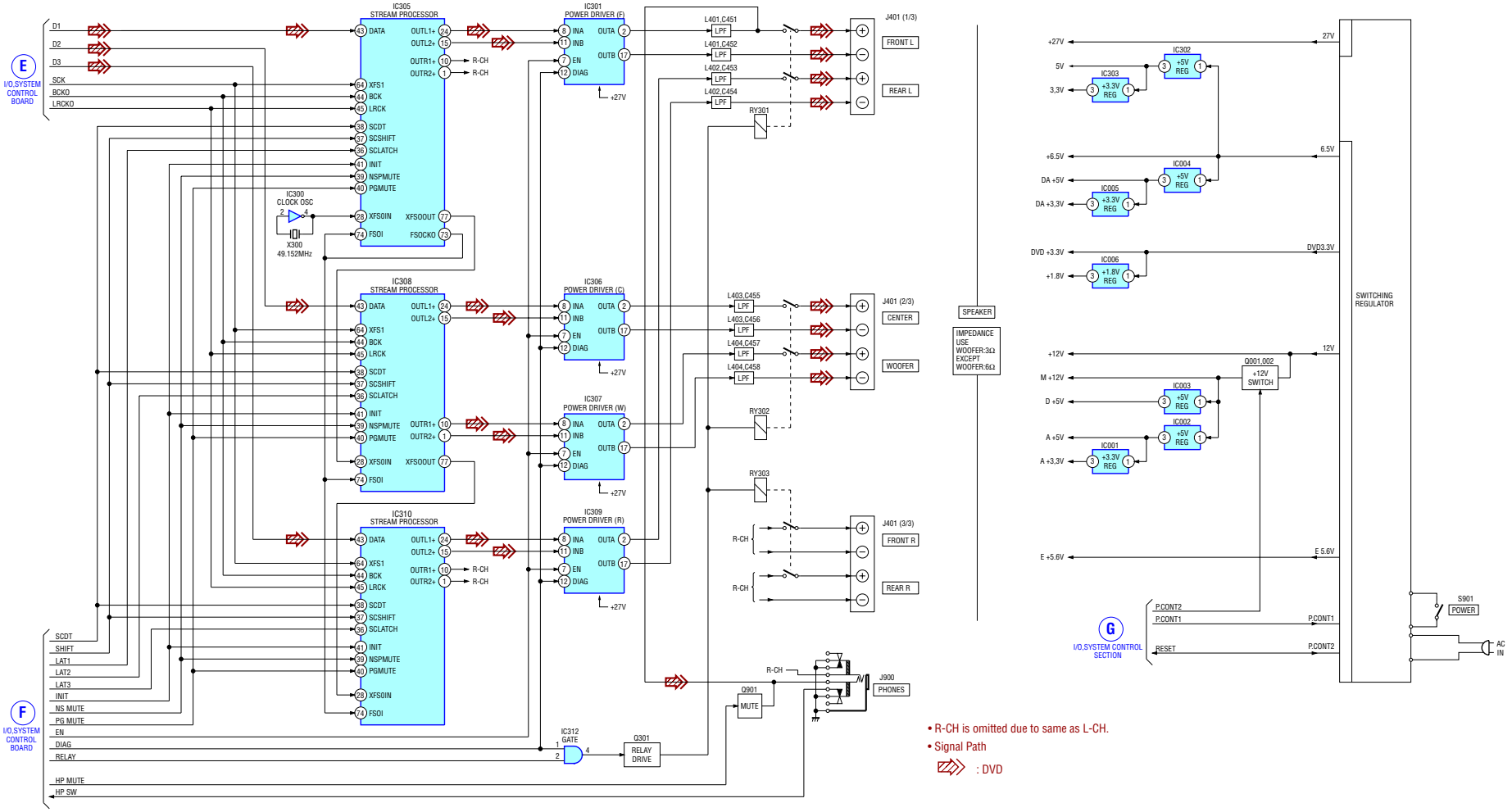
6-2. BLOCK DIAGRAMS
– RF/SERVO, VIDEO SECTION –



– CPU SECTION –

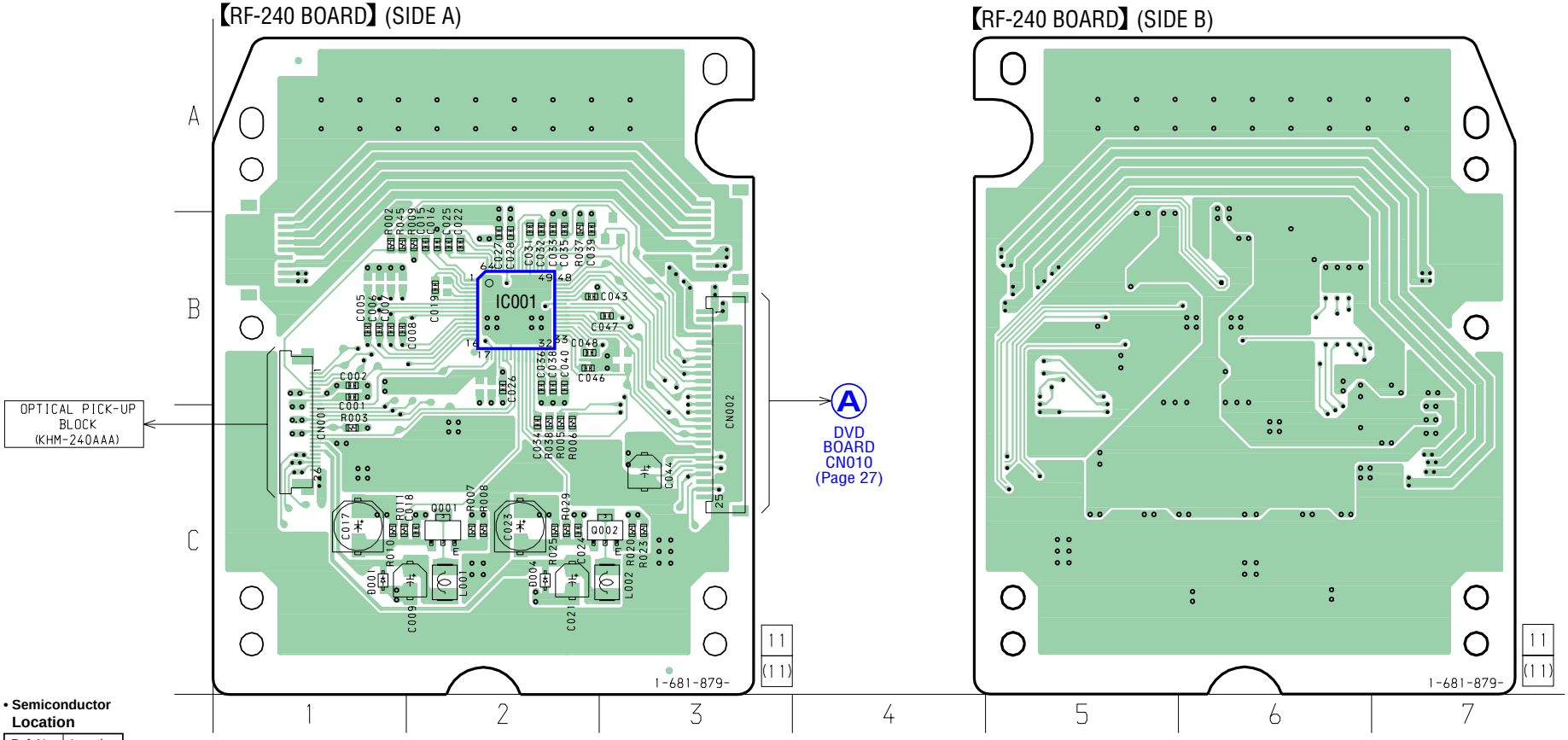

IC600 INPUT SEL
IC603
IC602 AUDIO A/D CONV
IC606 DIGITAL AUDIO I/F RECEIVER
IC612 DSD DIGITAL FILTERO
IC607 AUDIO DSP
IC608 AUDIO D/A CONV
IC610 LPF/AMP
IC604 SRAM
IC604 RDS
IC601 10V REG
IC600 5V REG
IC605 2.5V REG
TUNER UNIT
IC103 (2/2) SYSTEM CONTROL(A)
IC101 EEPROM
IC901 SYSTEM CONTROL(B)
IC902 DATA DECODER
IC802 FL DRIVER
IC101 REMOTE CONTROL RECEIVER
IC903,904 KEY DETECT
Q906,907 SIRCS DETECT
S801-805 FUNCTION KEY
S821-825 FUNCTION KEY
VOL ENCODER
VOLUME
OPEN/CLOSE
LED DRIVE
POWER
FL801 FLUORESCENT INDICATOR TUBE
DC/DC CONV
Q901 RESET
Q902 MUTE
Q903 MUTE
Q900 MUTE CONT
Q606 MUTE
CN101 (TEST CONNECTION)
X600 12.288MHz
X601 13.5MHz
X601 4.332MHz
X901 16MHz
X101
S500: AEP,UK / S800 MODEL
• R-CH is omitted due to same as L-CH.
• Signal Path
: FM
: CD
: DVD

– POWER SECTION –



• R-CH is omitted due to same as L-CH.
• Signal Path
: DVD

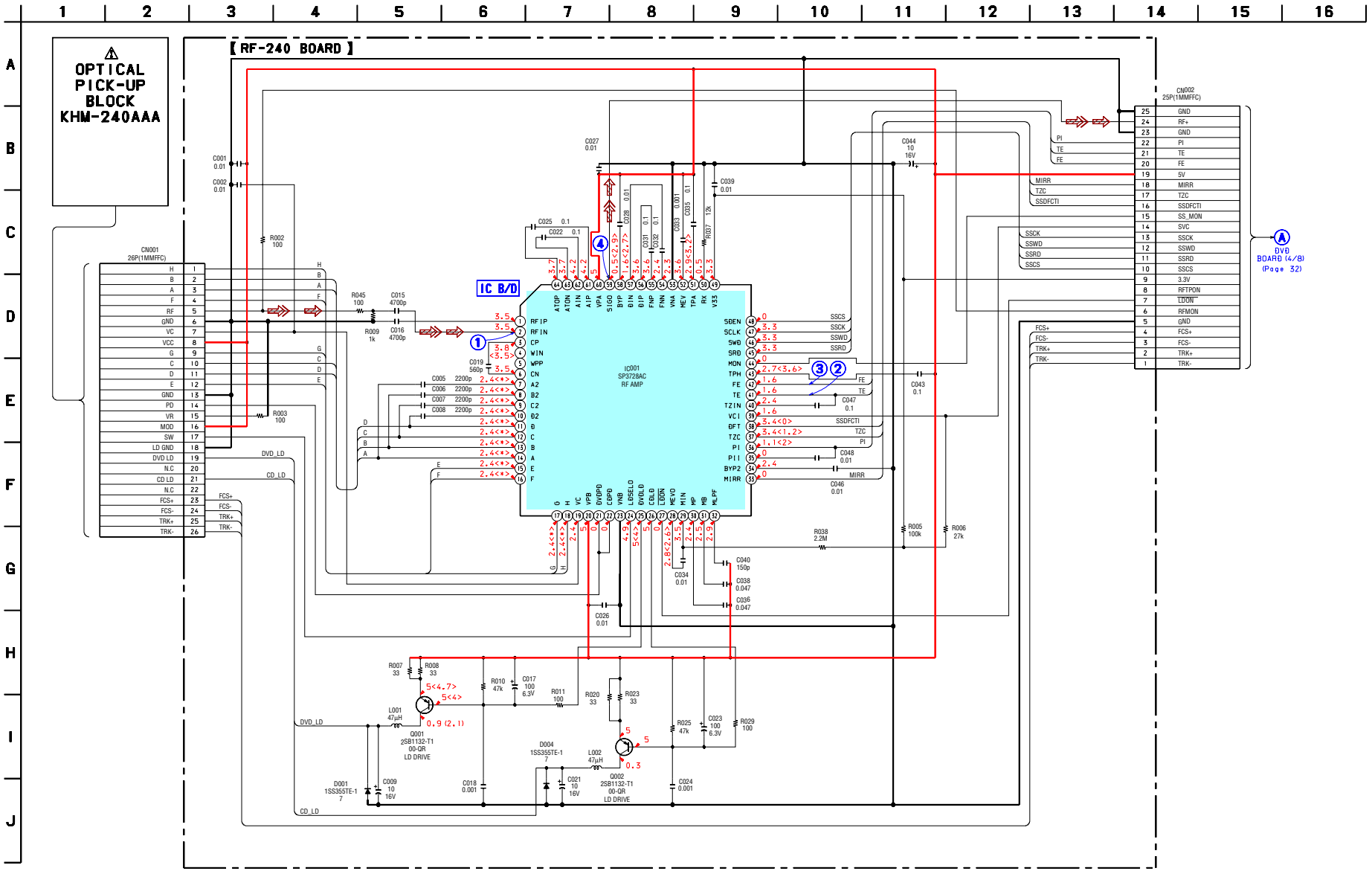
6-3. PRINTED WIRING BOARD – RF-240 SECTION – • See page 21 for Circuit Boards Location.



• **Semiconductor Location**

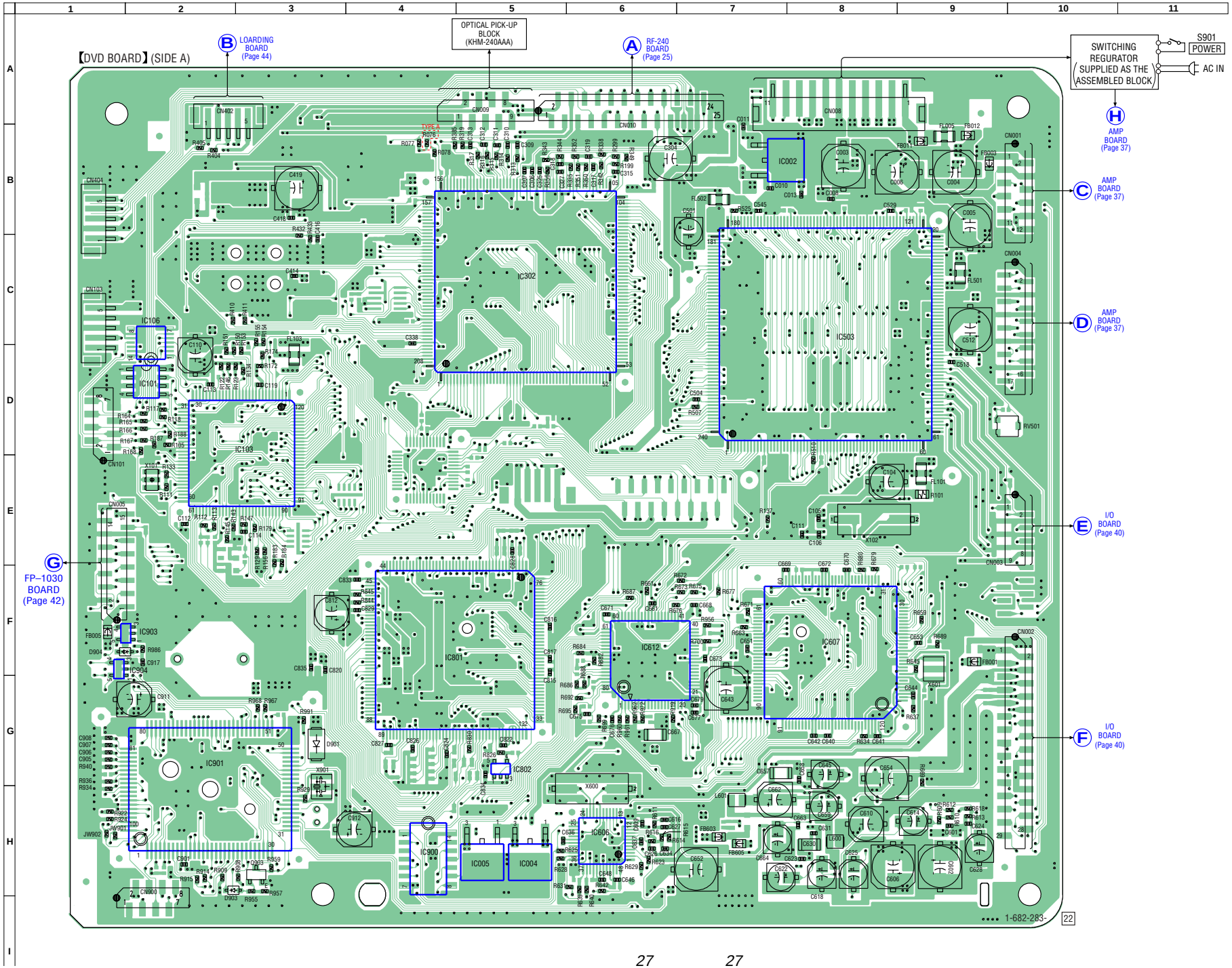
Ref. No.	Location
D001	C-1
D004	C-2
IC001	C-2
Q001	C-2
Q002	C-3

6-4. SCHEMATIC DIAGRAM – RF-240 SECTION –



6-5. PRINTED WIRING BOARD – DVD SECTION (1/2) –

• See page 21 for Circuit Boards Location.

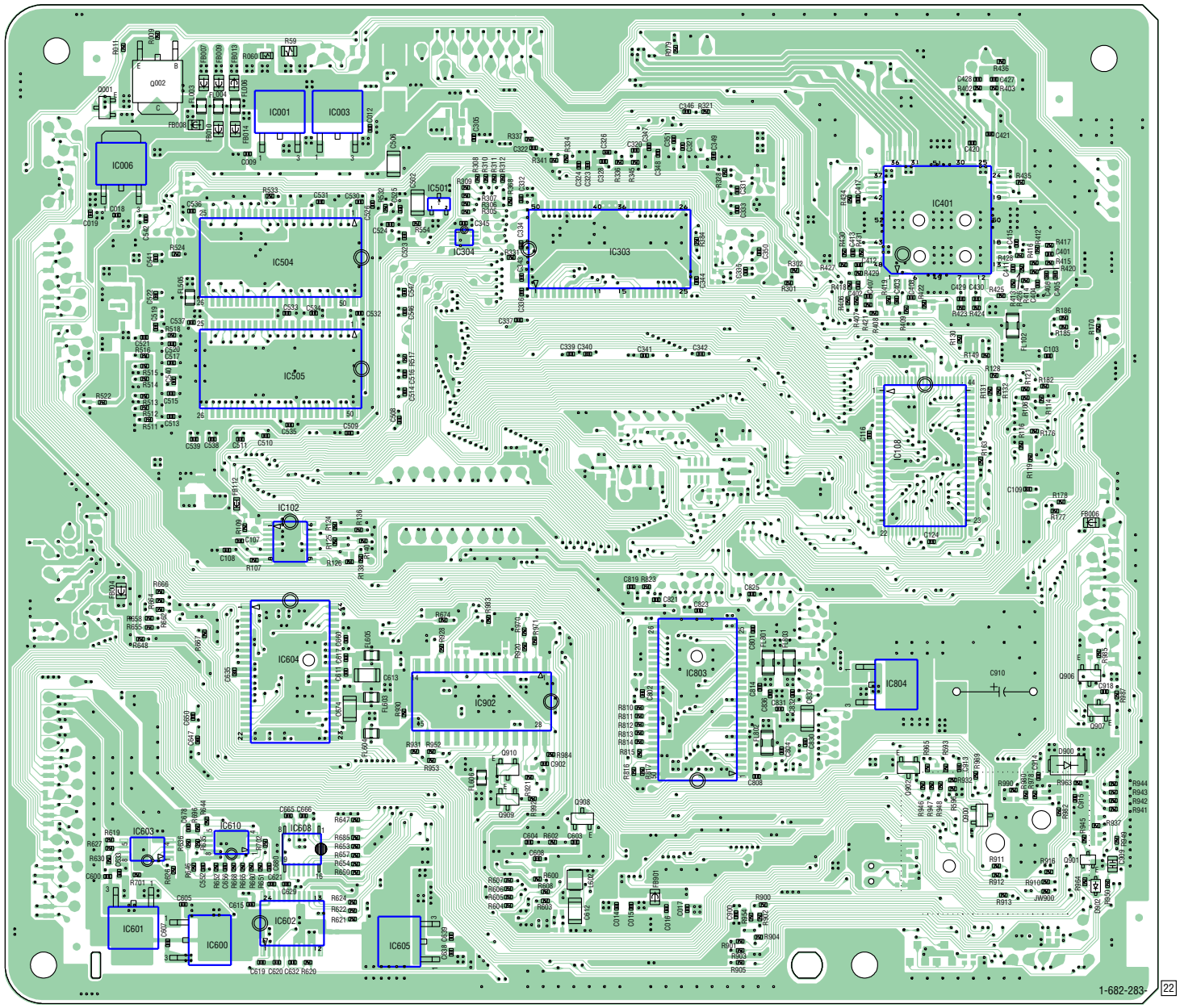


• **Semiconductor Location**

Ref. No.	Location
D901	G-3
D903	H-2
D904	F-1
IC002	B-7
IC004	H-5
IC005	H-5
IC101	D-2
IC103	D-3
IC106	C-2
IC302	C-5
IC503	C-8
IC606	H-6
IC607	F-8
IC612	F-6
IC801	F-4
IC802	G-5
IC900	H-4
IC901	G-2
IC903	F-2
IC904	F-1
Q903	H-3

– DVD SECTION (2/2) – • See page 21 for Circuit Boards Location.

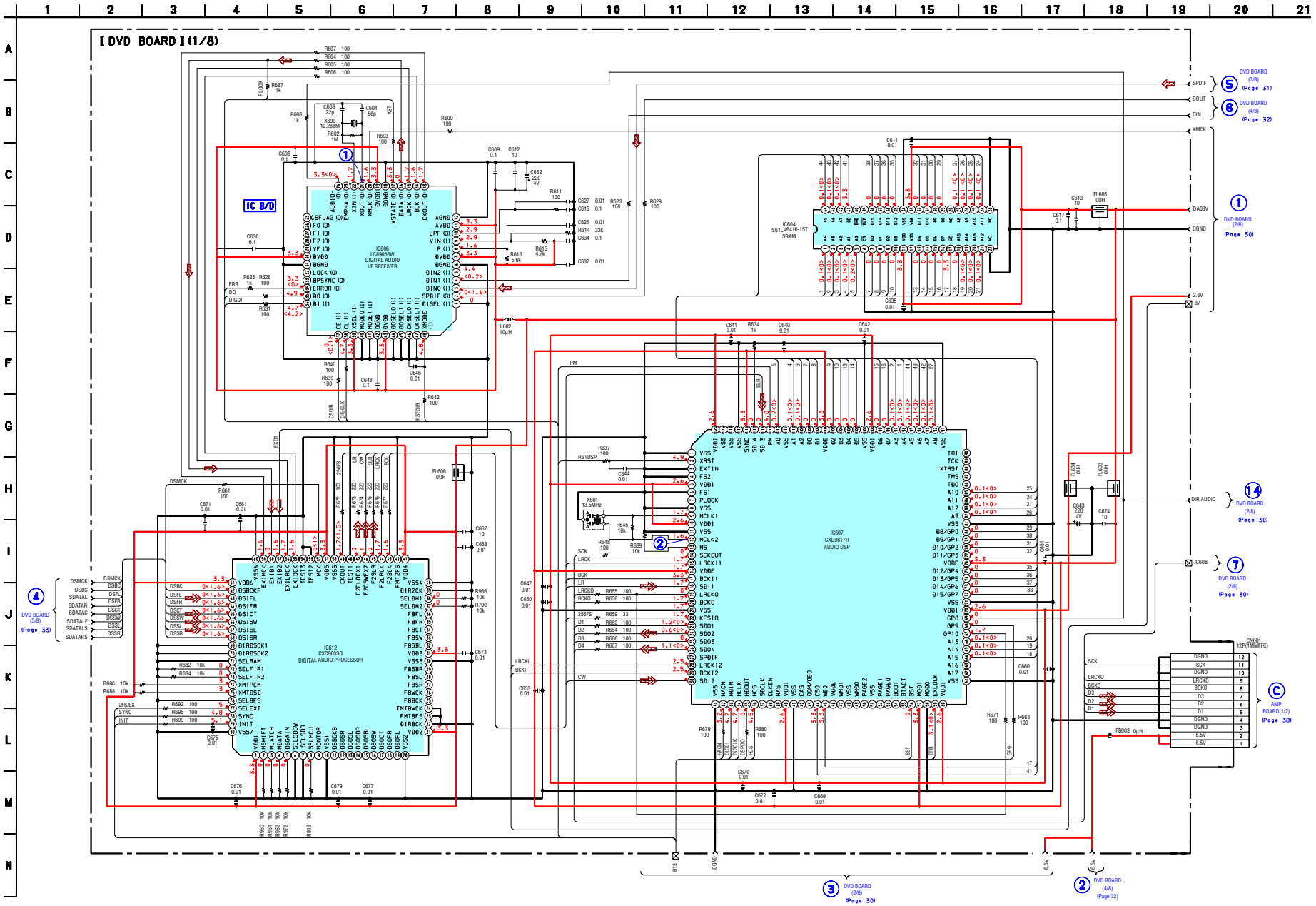
【DVD BOARD】(SIDE B)



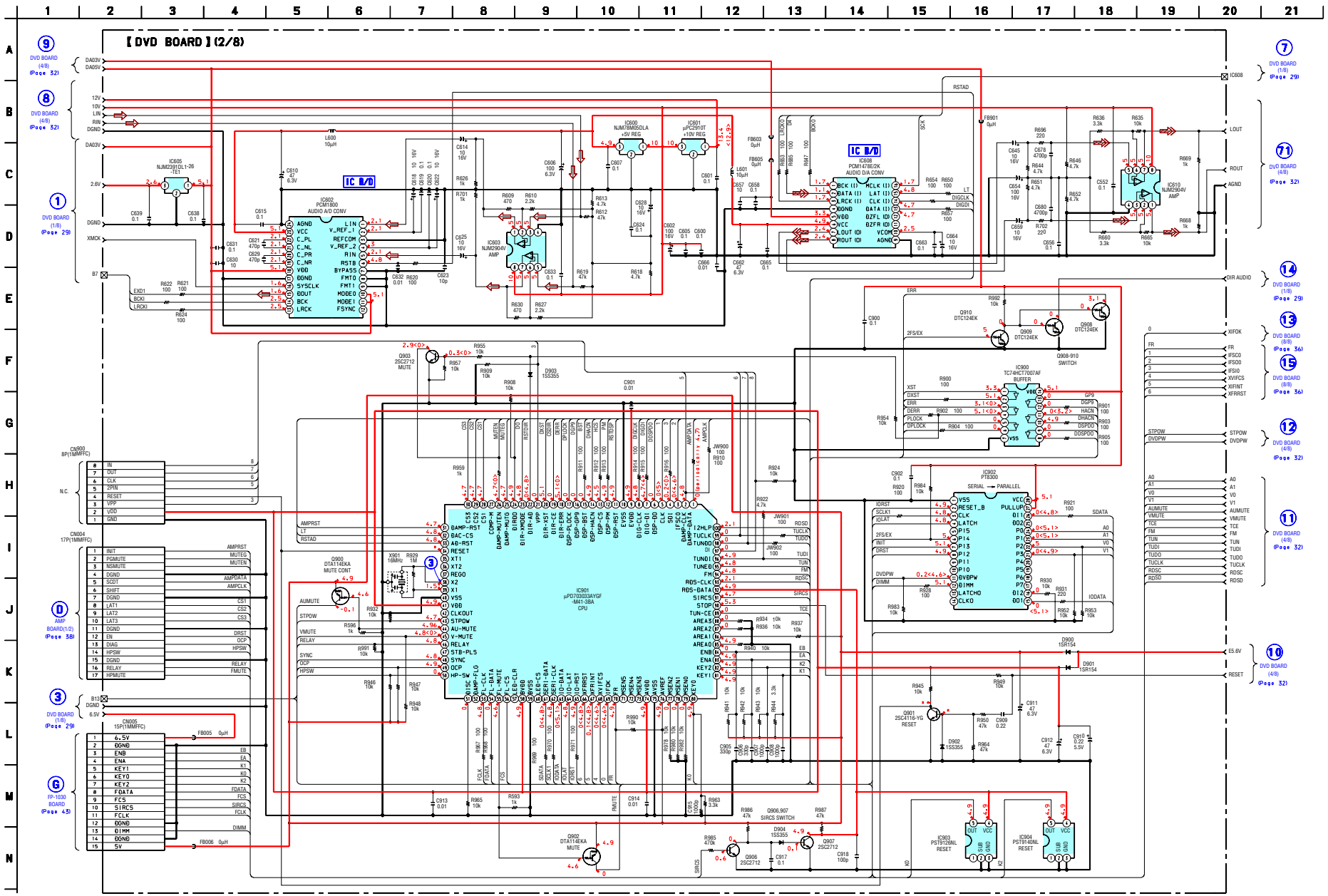
• **Semiconductor Location**

Ref. No.	Location
D900	G-9
D902	H-9
IC001	B-3
IC003	B-3
IC006	B-2
IC102	E-3
IC108	D-8
IC303	C-5
IC304	C-4
IC401	B-8
IC501	B-4
IC504	C-3
IC505	D-3
IC600	H-2
IC601	H-2
IC602	H-3
IC603	G-2
IC604	F-3
IC605	H-4
IC608	G-3
IC610	G-2
IC803	F-6
IC804	F-8
IC902	F-4
Q001	A-1
Q002	A-2
Q900	G-8
Q901	G-9
Q902	G-8
Q906	F-9
Q907	F-9
Q908	G-5
Q909	G-5
Q910	G-5

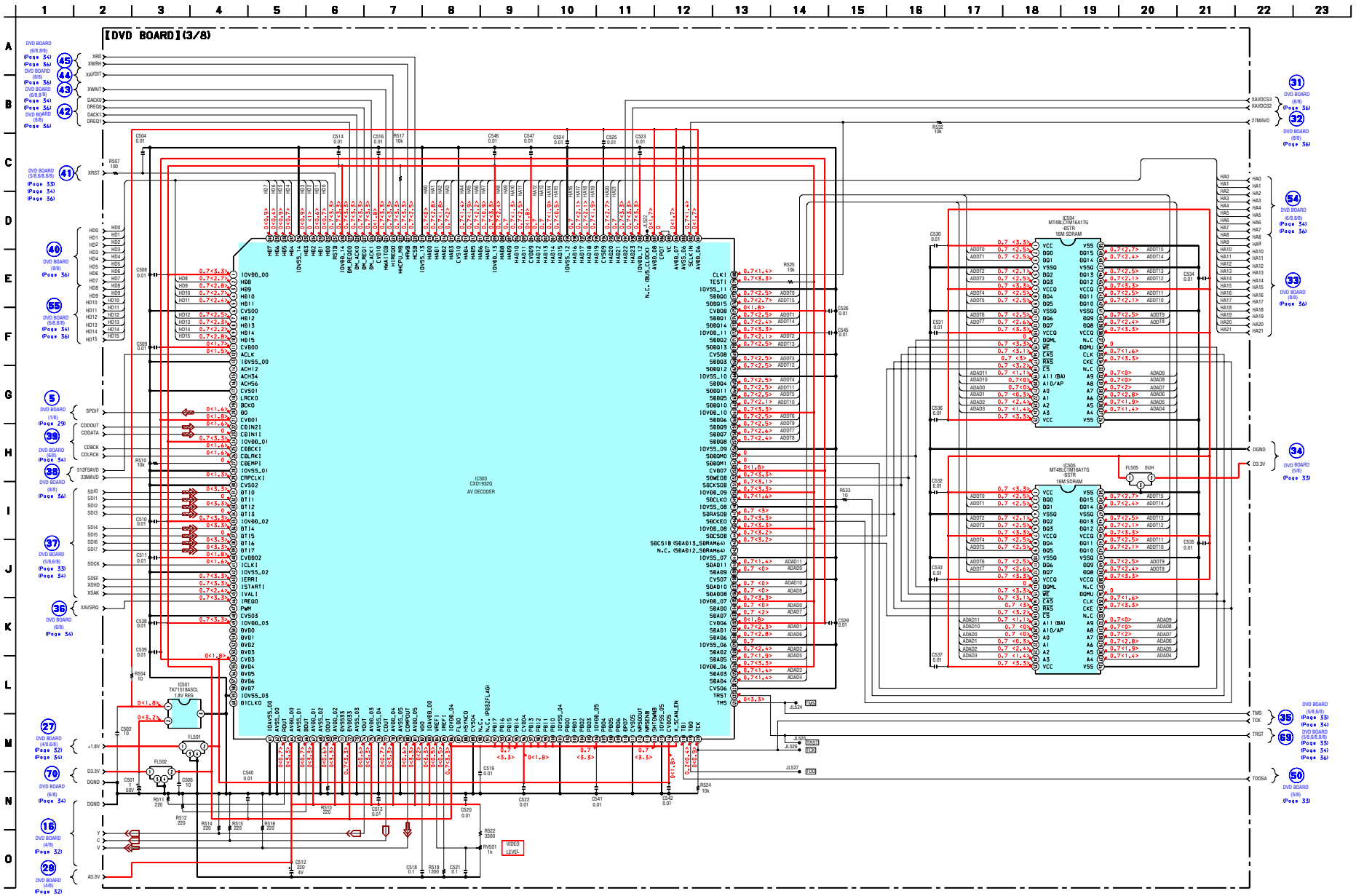
6-6. SCHEMATIC DIAGRAM – DVD (1/8) SECTION –



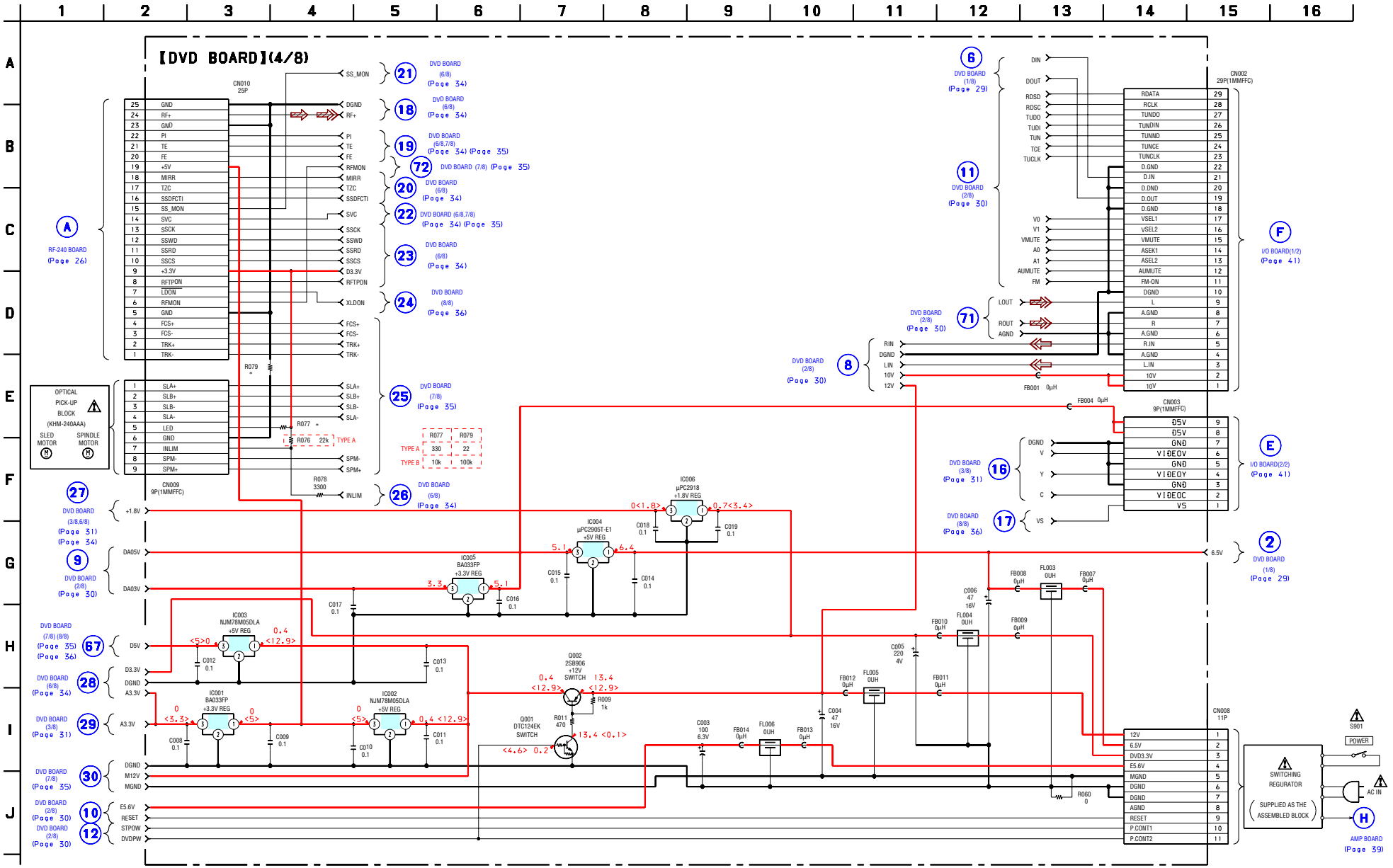
6-7. SCHEMATIC DIAGRAM – DVD (2/8) SECTION –



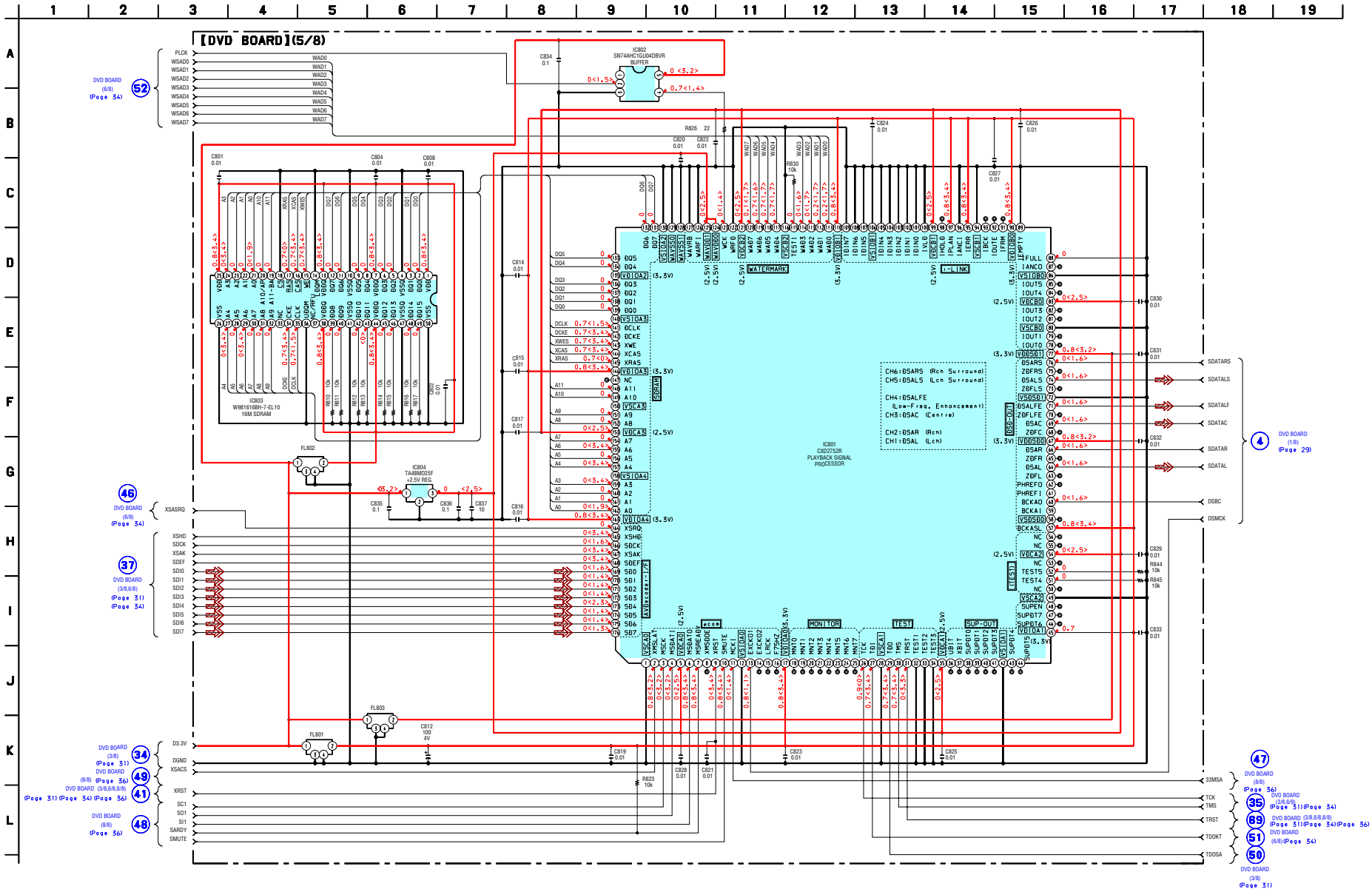
6-8. SCHEMATIC DIAGRAM – DVD (3/8) SECTION –



6-9. SCHEMATIC DIAGRAM – DVD (4/8) SECTION –

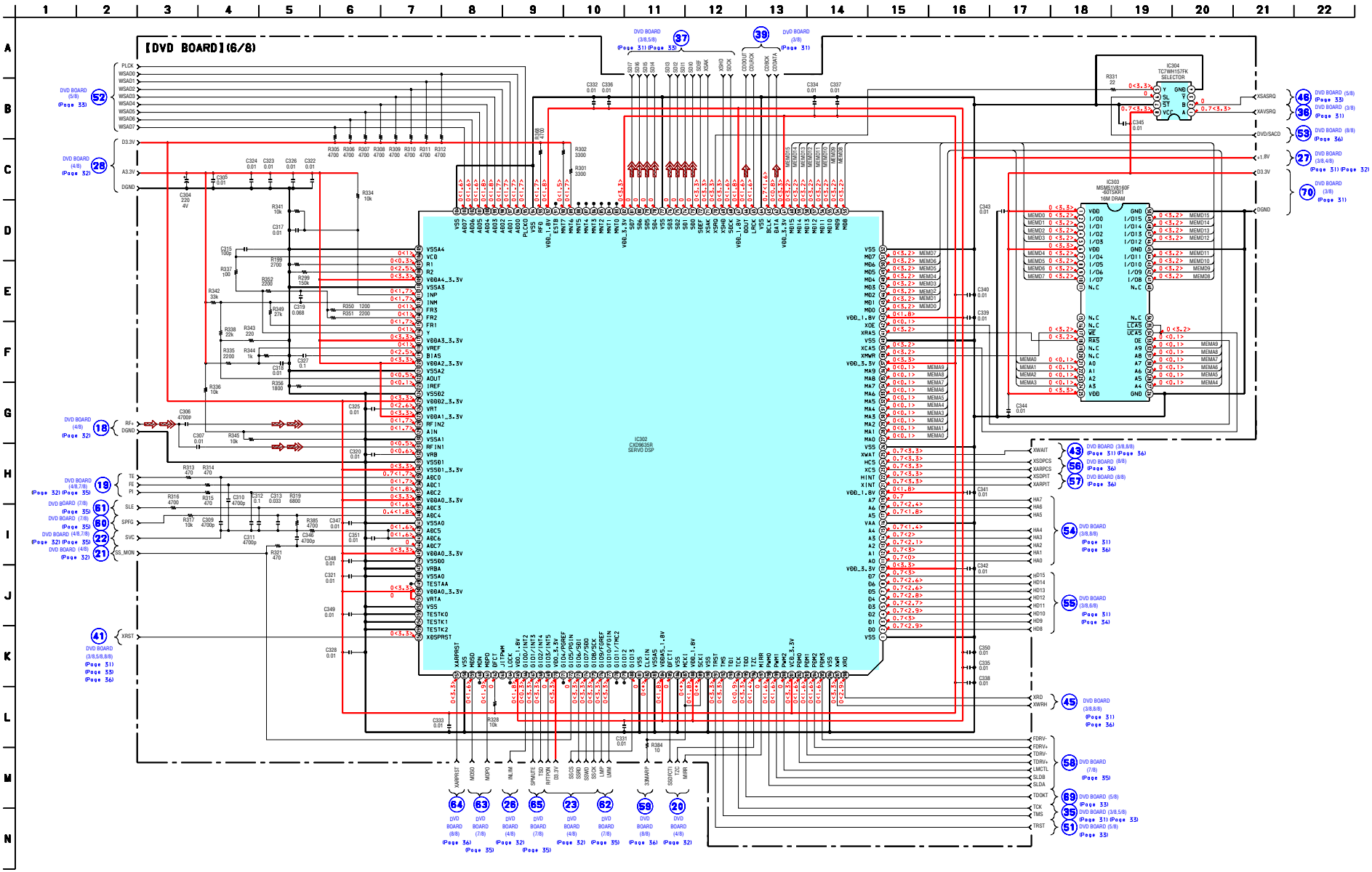


6-10. SCHEMATIC DIAGRAM – DVD (5/8) SECTION – • See page 53 for IC Pin Function Description.

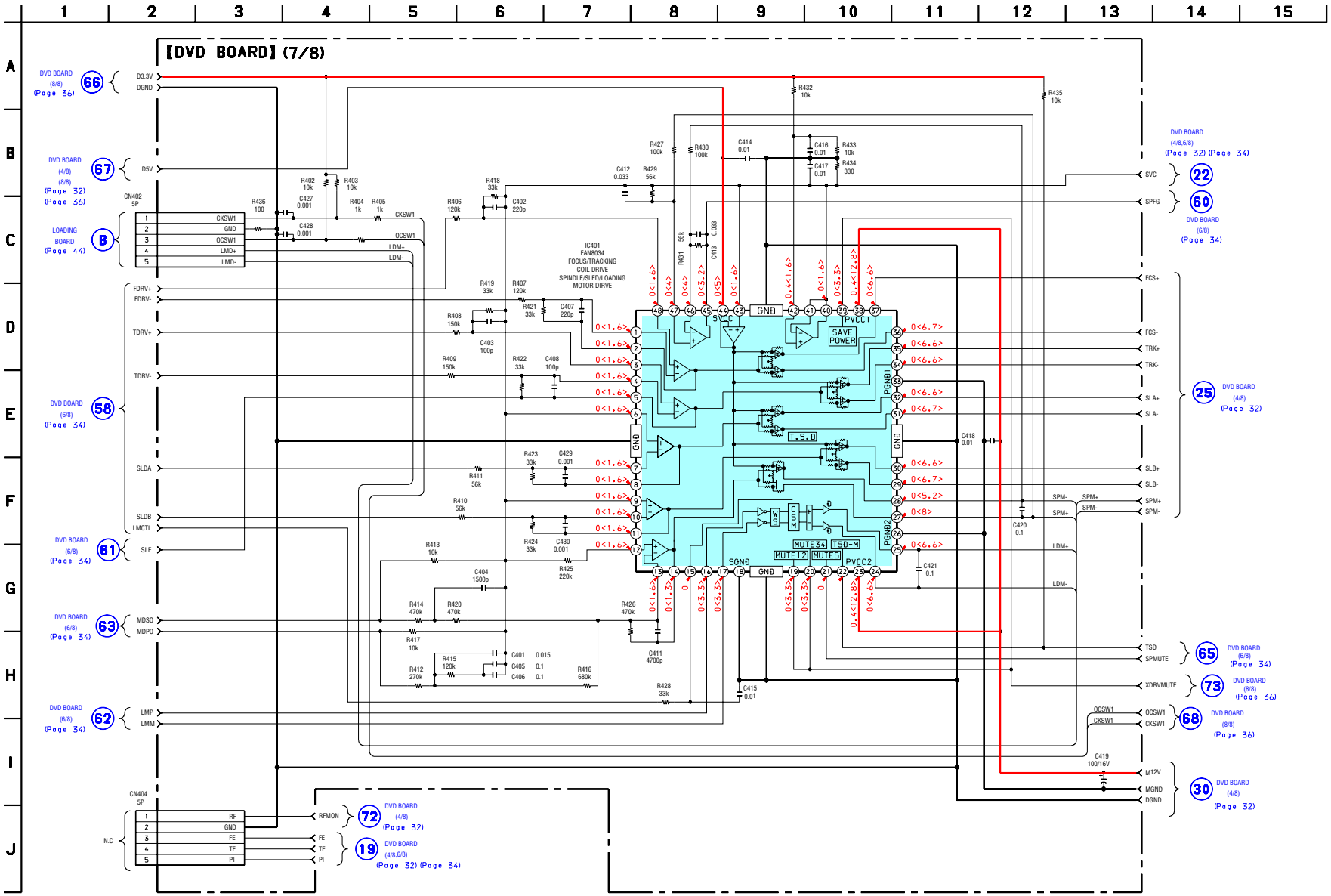


6-11. SCHEMATIC DIAGRAM – DVD (6/8) SECTION –

• See page 50 for IC Pin Function Description.

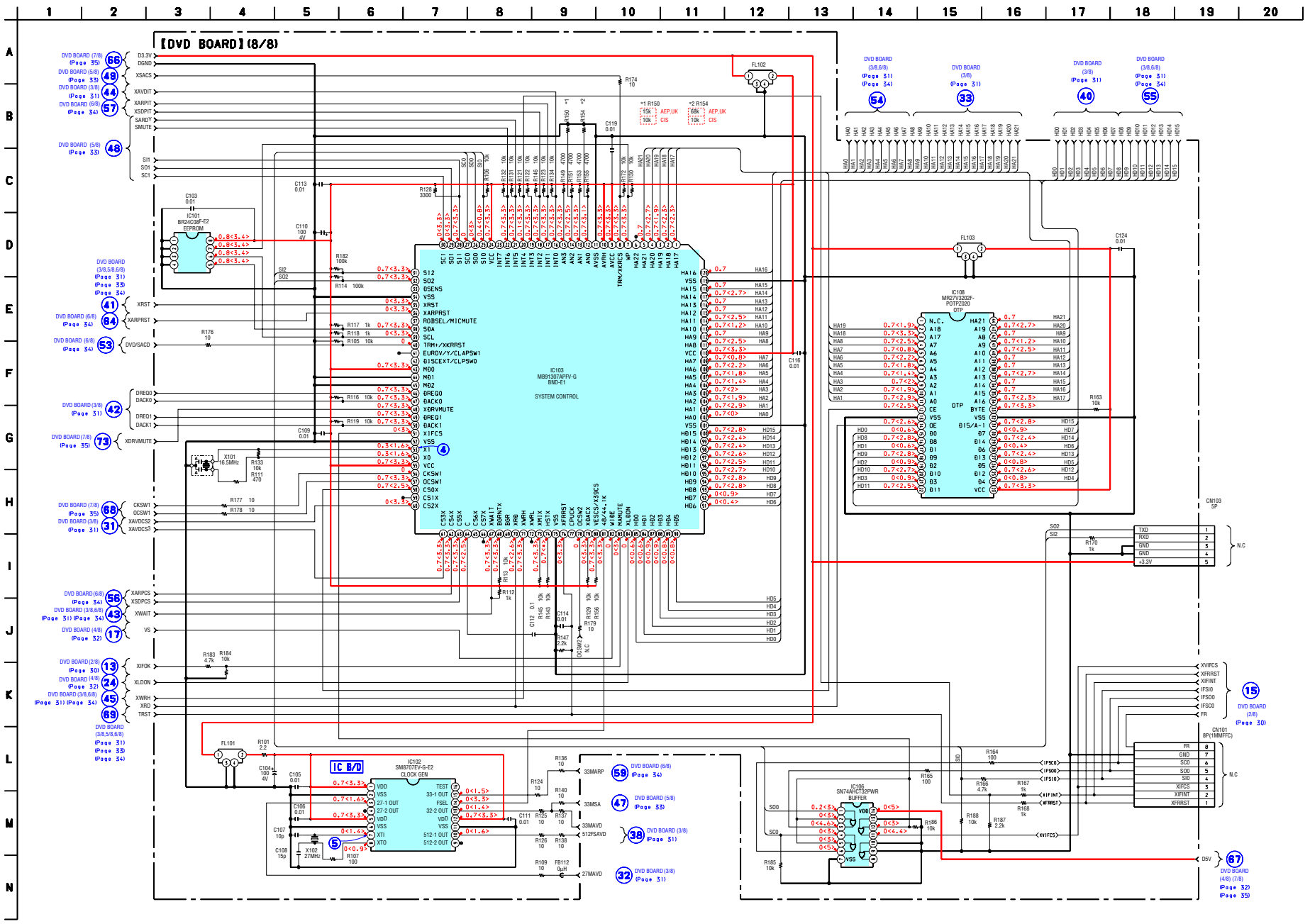


6-12. SCHEMATIC DIAGRAM – DVD (7/8) SECTION –



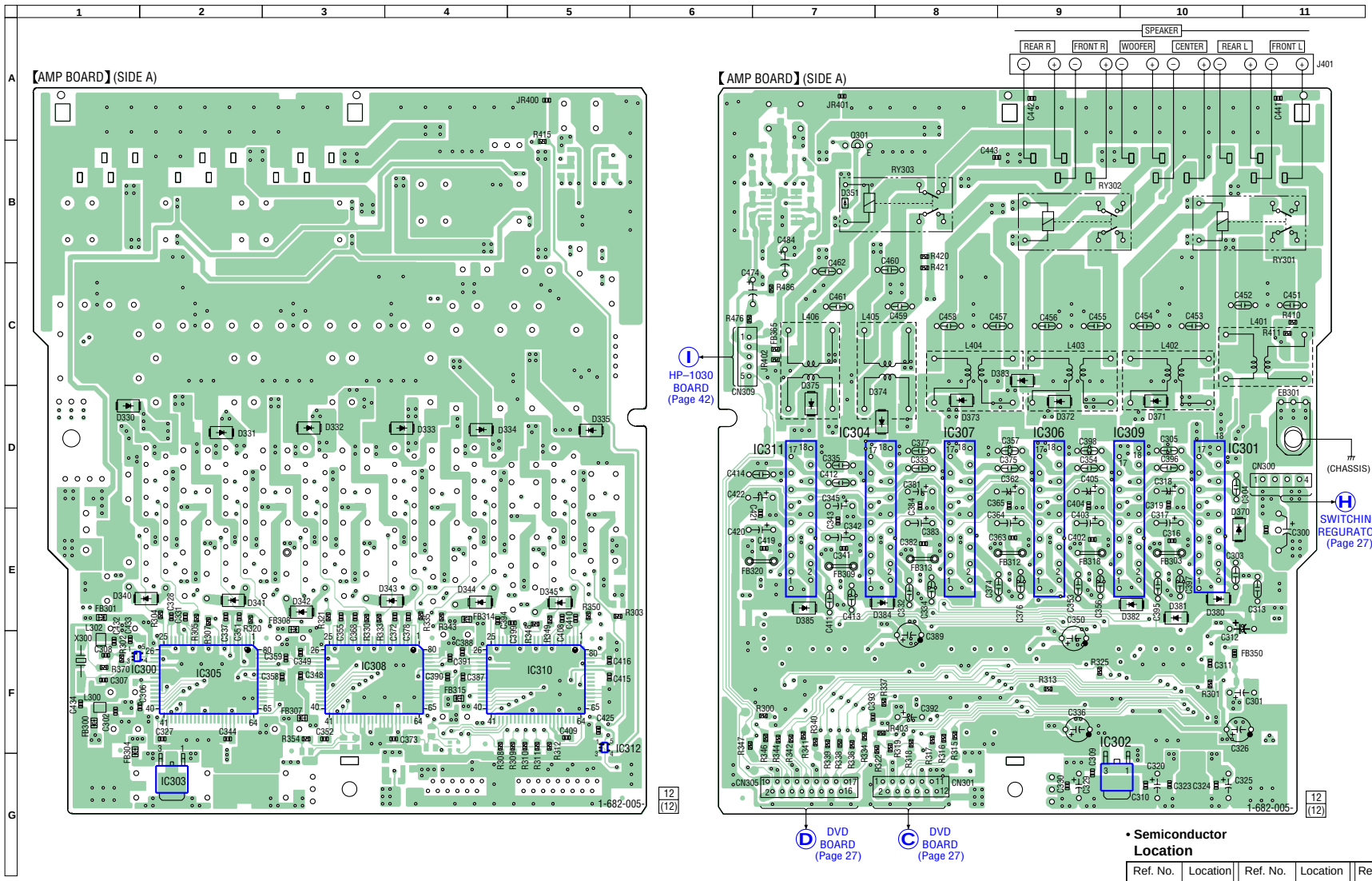
6-13. SCHEMATIC DIAGRAM – DVD (8/8) SECTION –

• See page 50 for IC Pin Function Description.



6-14. PRINTED WIRING BOARD – AMP SECTION –

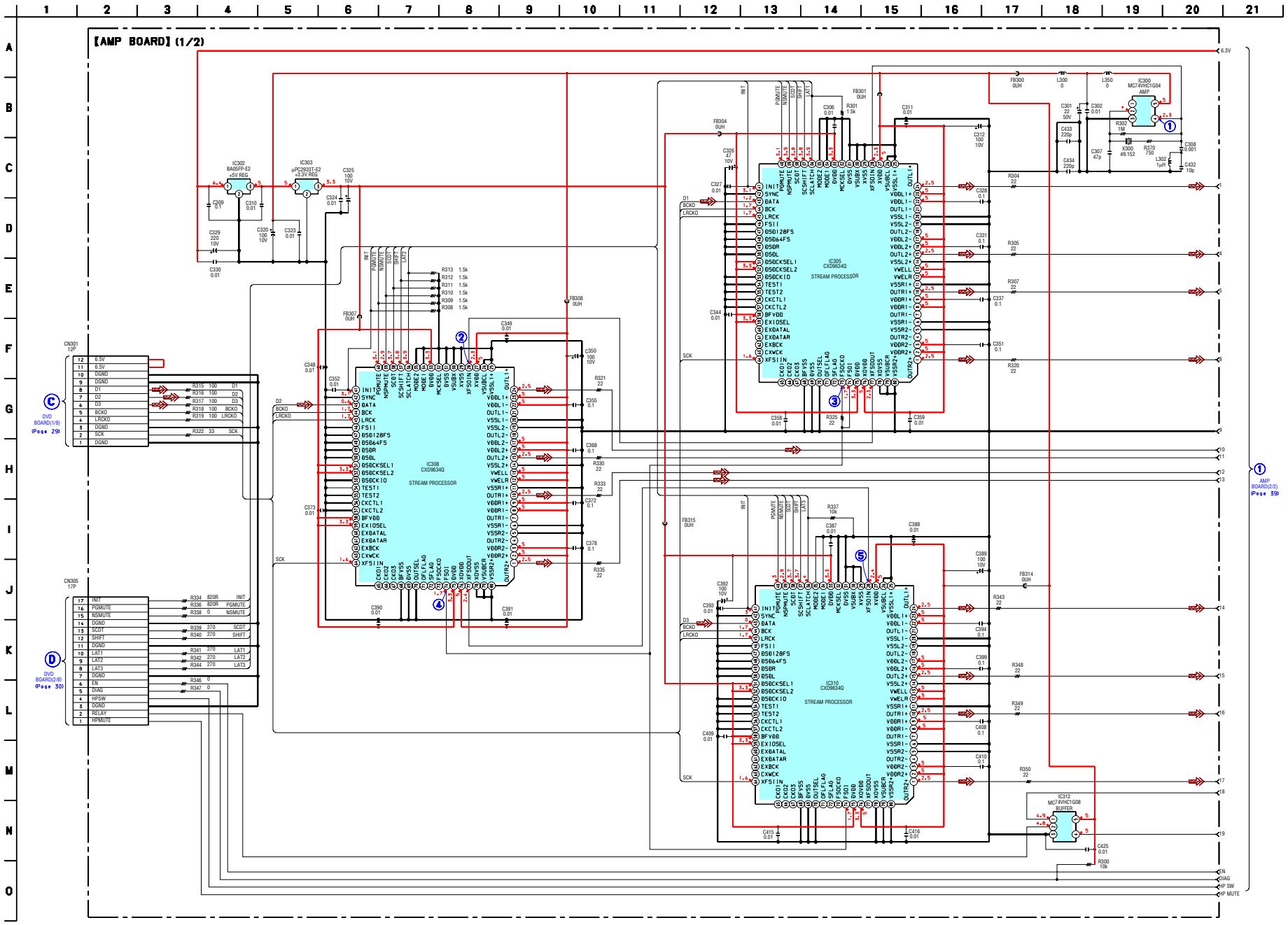
• See page 21 for Circuit Boards Location.



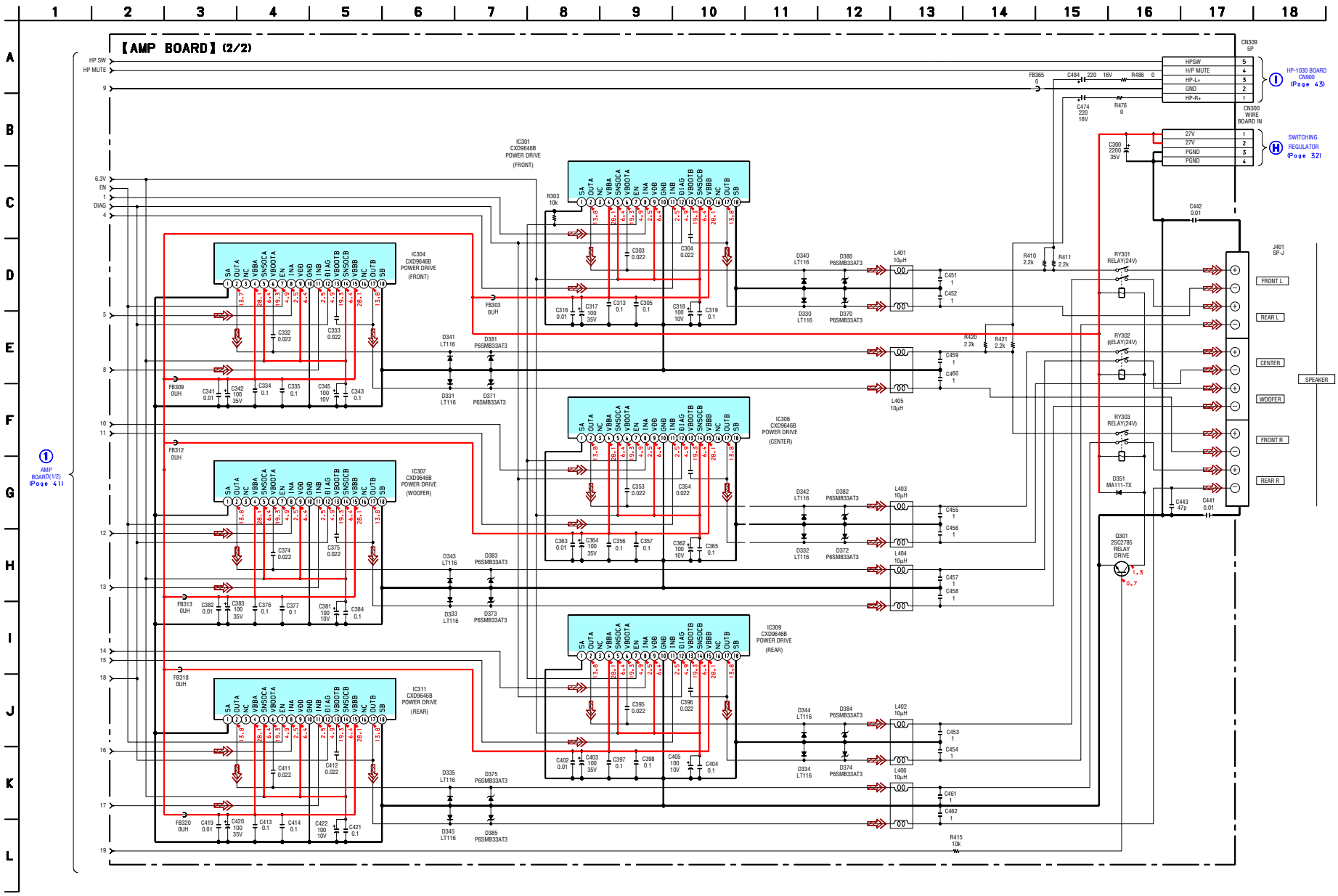
• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D330	D-1	D371	D-10	IC302	G-9
D331	D-2	D372	D-9	IC303	G-2
D332	D-3	D373	D-8	IC304	D-8
D333	D-4	D374	D-8	IC305	F-2
D334	D-4	D375	D-7	IC306	D-9
D335	D-5	D380	E-10	IC307	D-8
D340	E-2	D381	E-10	IC308	F-3
D341	E-2	D382	E-10	IC309	D-10
D342	E-3	D383	C-9	IC310	F-5
D343	E-4	D384	E-8	IC311	D-7
D344	E-4	D385	E-7	IC312	F-5
D345	E-5				
D351	B-7	IC300	F-1	Q301	B-7
D370	E-10	IC301	D-10		

6-15. SCHEMATIC DIAGRAM – AMP SECTION (1/2) –

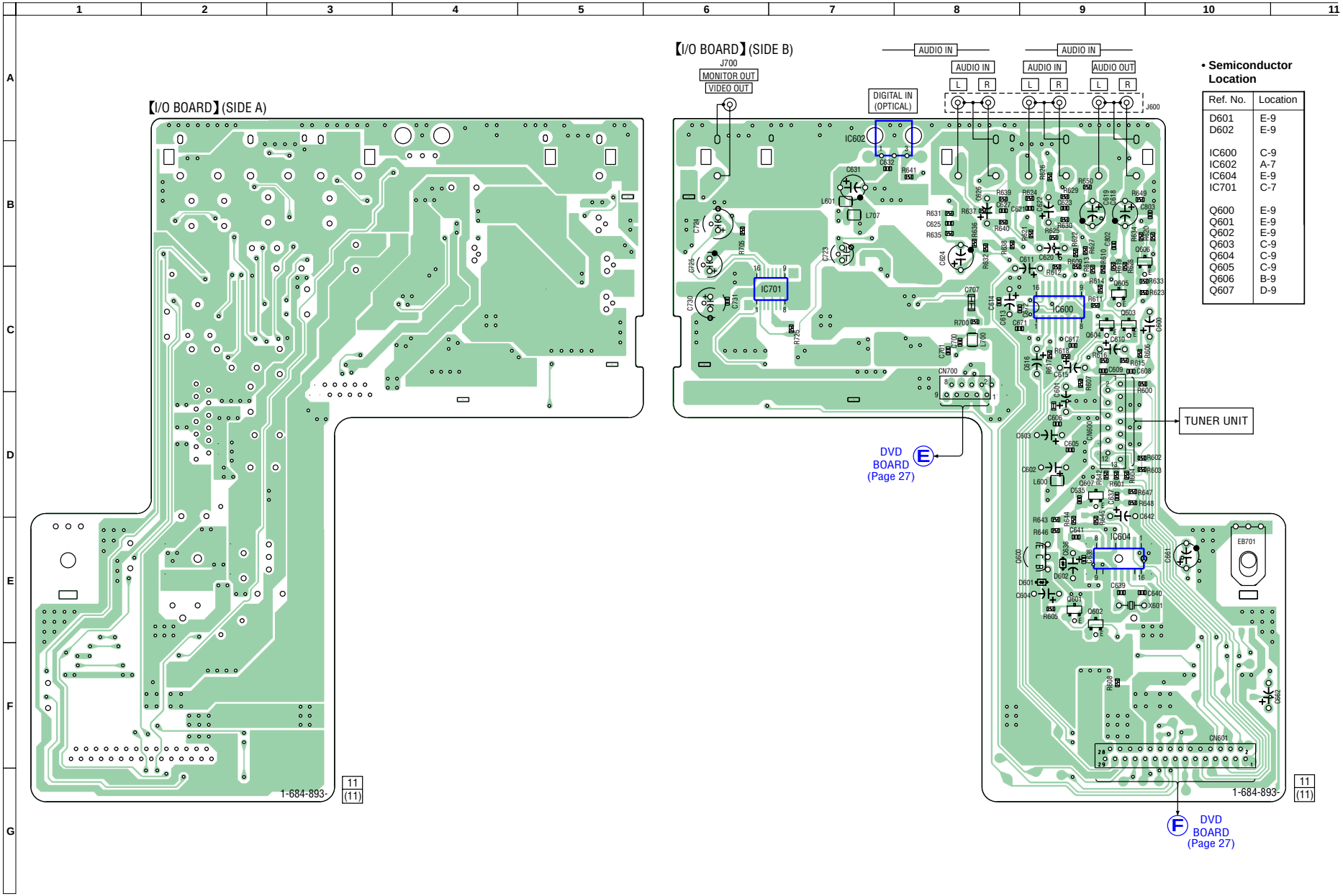


6-16. SCHEMATIC DIAGRAM – AMP SECTION (2/2) –



6-17. PRINTED WIRING BOARD – I/O SECTION –

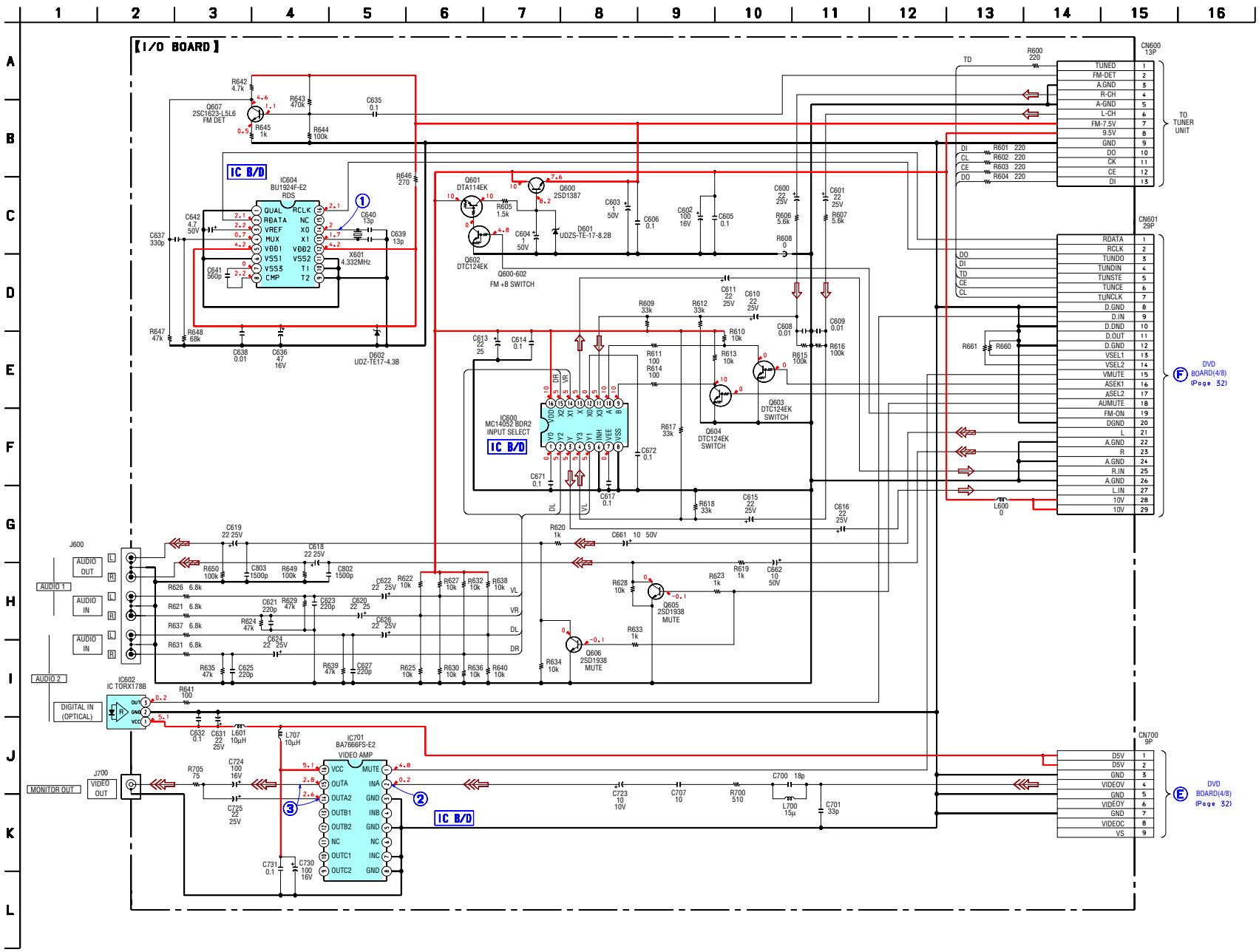
• See page 21 for Circuit Boards Location.



• **Semiconductor Location**

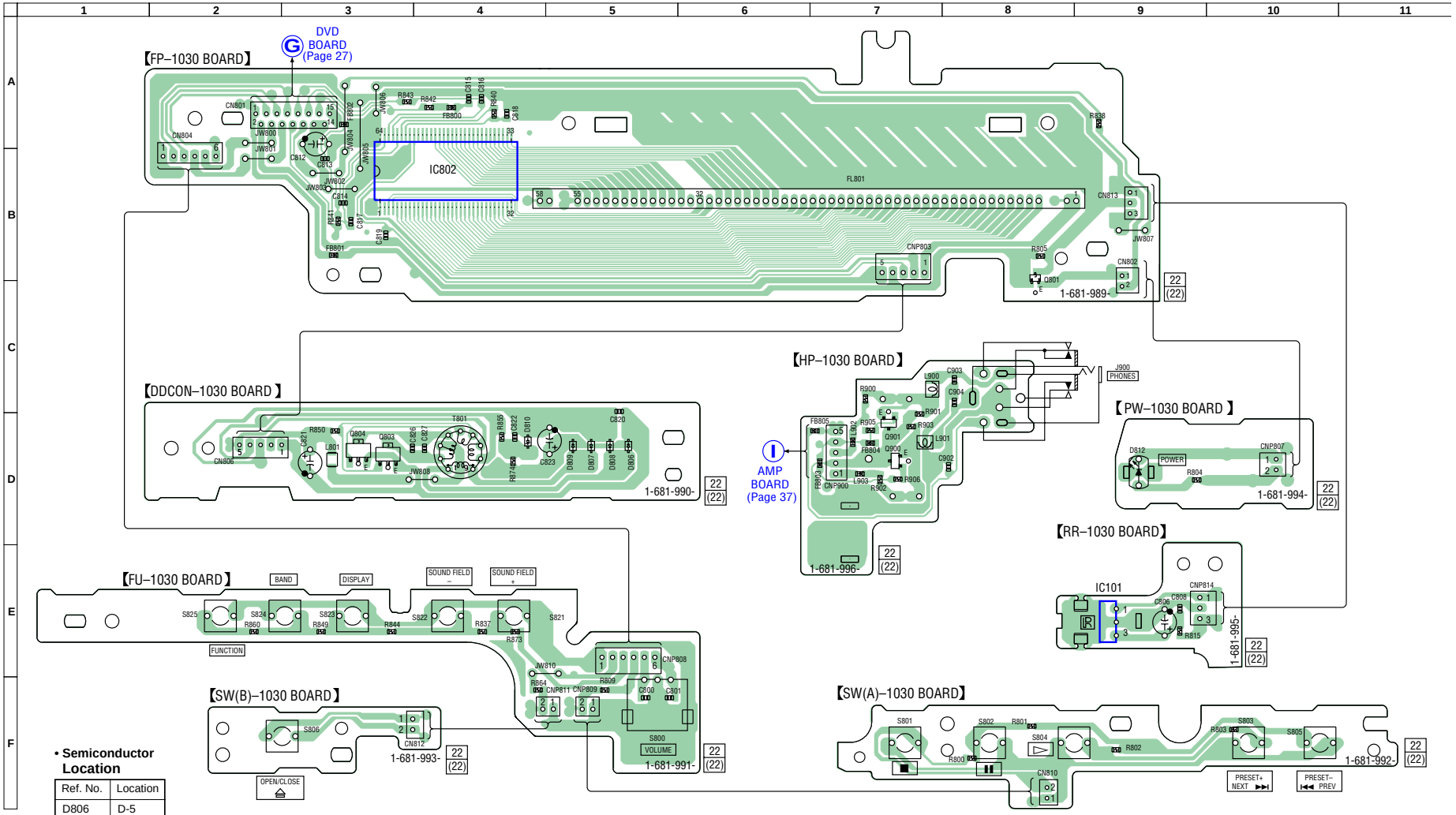
Ref. No.	Location
D601	E-9
D602	E-9
IC600	C-9
IC602	A-7
IC604	E-9
IC701	C-7
Q600	E-9
Q601	E-9
Q602	E-9
Q603	C-9
Q604	C-9
Q605	C-9
Q606	B-9
Q607	D-9

6-18. SCHEMATIC DIAGRAM – I/O SECTION –



6-19. PRINTED WIRING BOARD – PANEL SECTION –

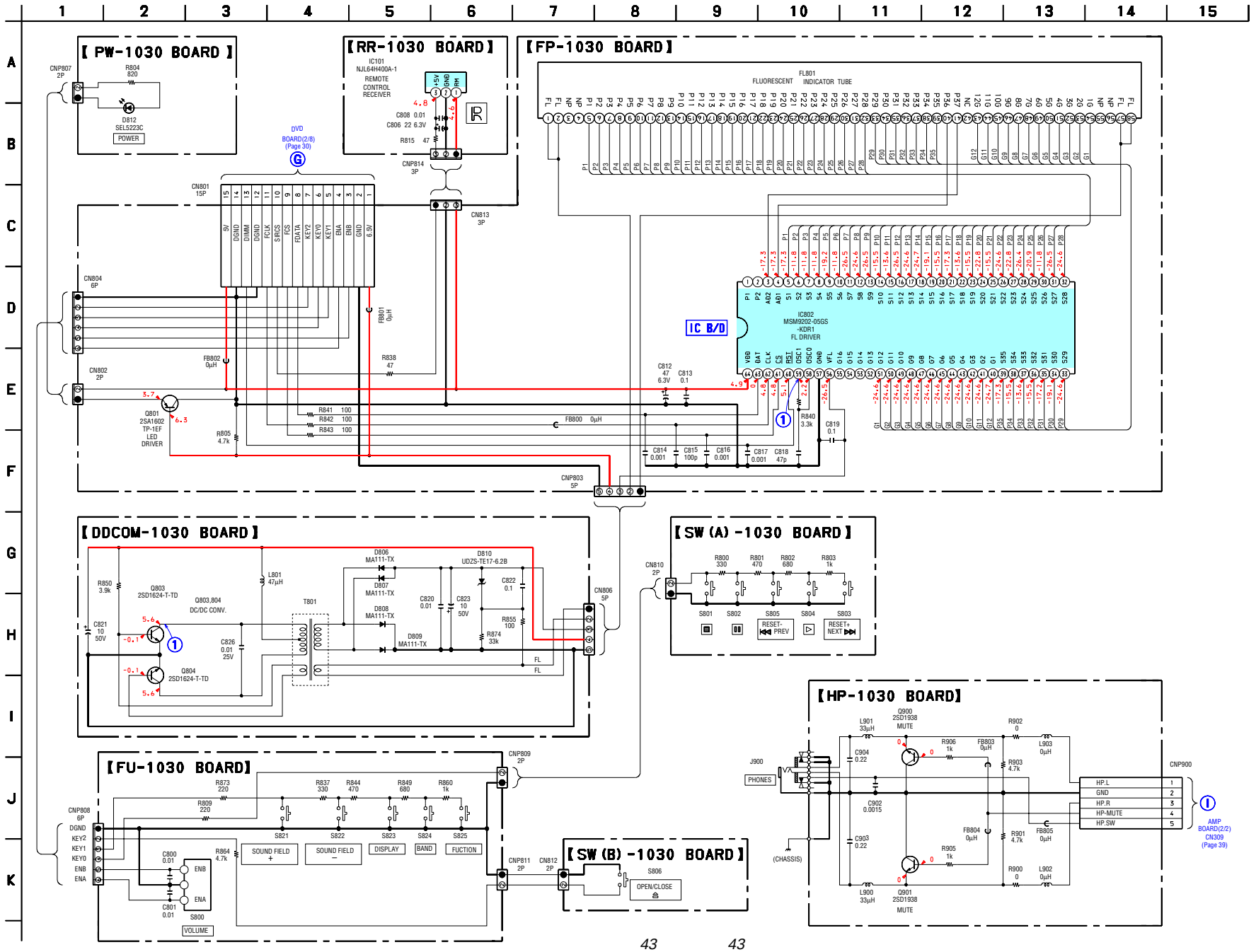
• See page 21 for Circuit Boards Location.



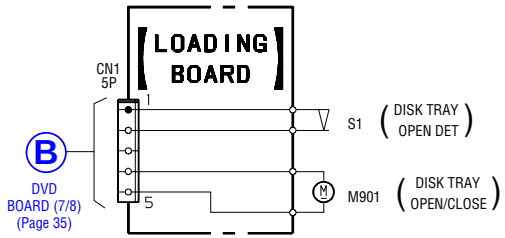
• **Semiconductor Location**

Ref. No.	Location
D806	D-5
D807	D-5
D808	D-5
D809	D-5
D810	D-4
D812	D-9
IC101	E-9
IC802	B-4
Q801	B-8
Q803	D-3
Q804	D-3
Q900	D-7
Q901	D-7

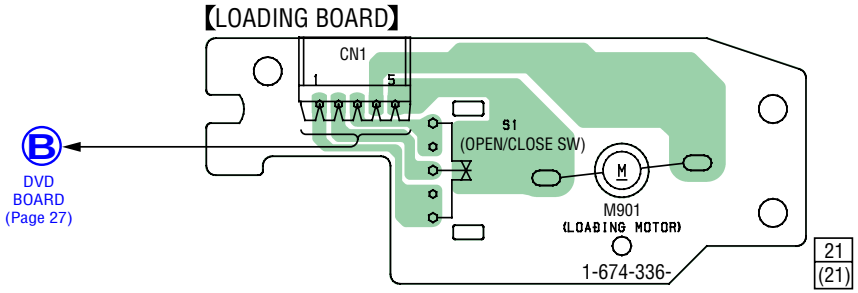
6-20. SCHEMATIC DIAGRAM – PANEL SECTION –



6-21. SCHEMATIC DIAGRAM – LOADING SECTION –

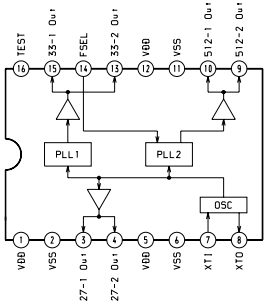


6-22. PRINTED WIRING BOARD – LOADING SECTION –

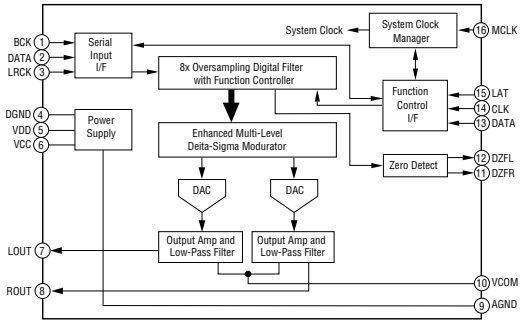


6-23. IC BLOCK DIAGRAMS

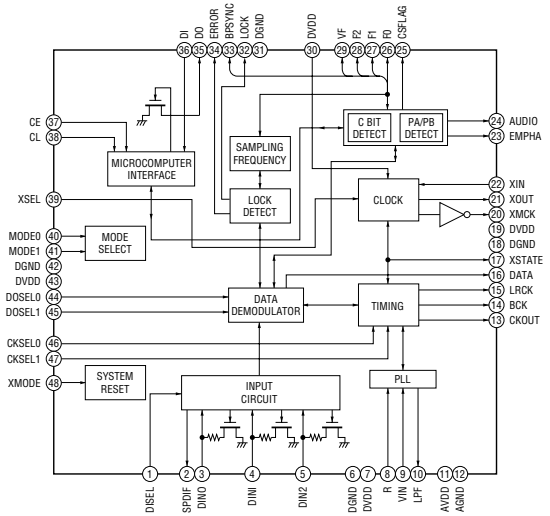
IC102 SM8707EV-G-E2 (DVD BOARD)



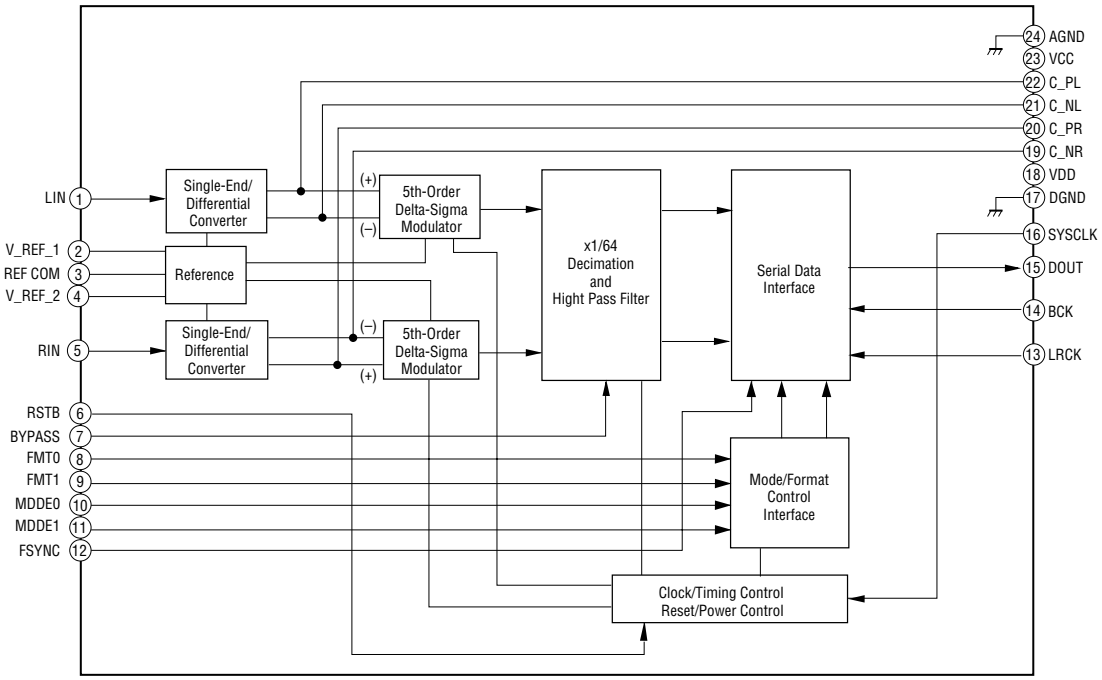
IC608 PCM1748E/2K (DVD BOARD)



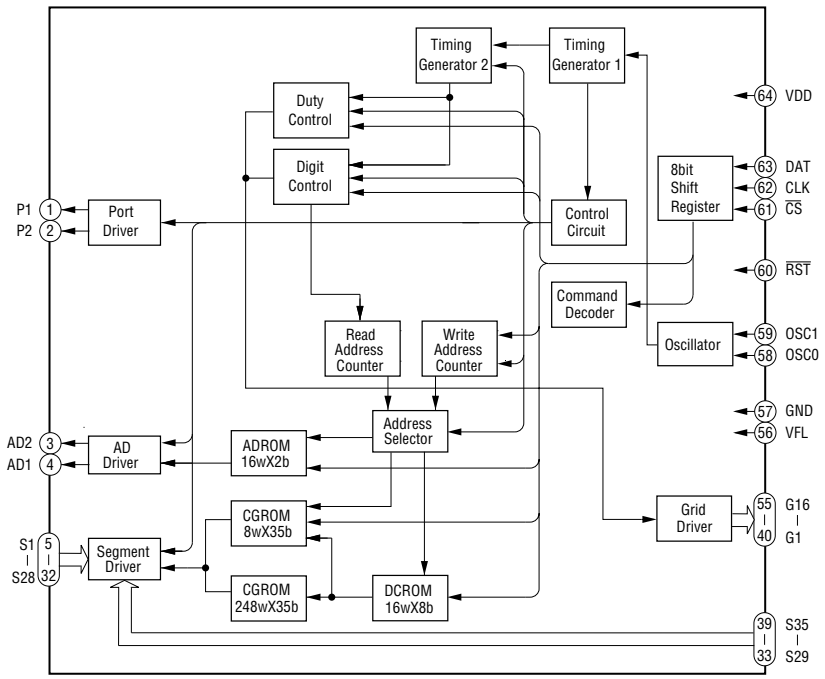
IC606 LC89056W-E (DVD BOARD)



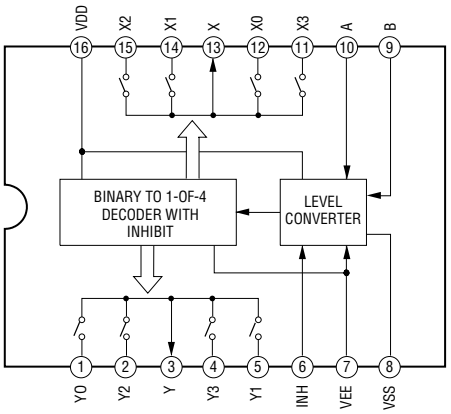
IC602 PCM1800E/2K (DVD BOARD)



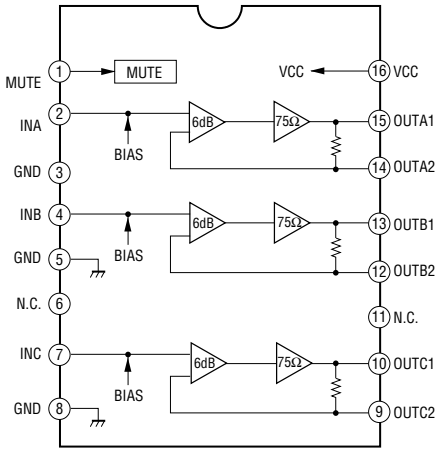
IC802 MSM9202-05GS-KDR1 (FP-1030 BOARD)



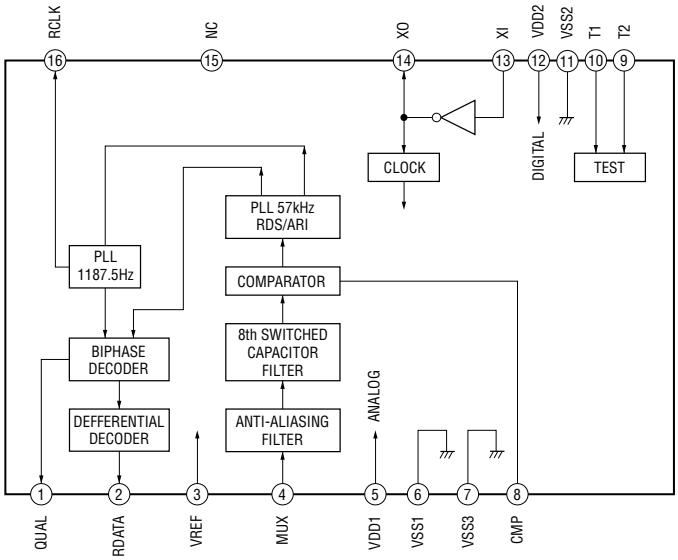
IC600 MC14052BDR2 (I/O BOARD)



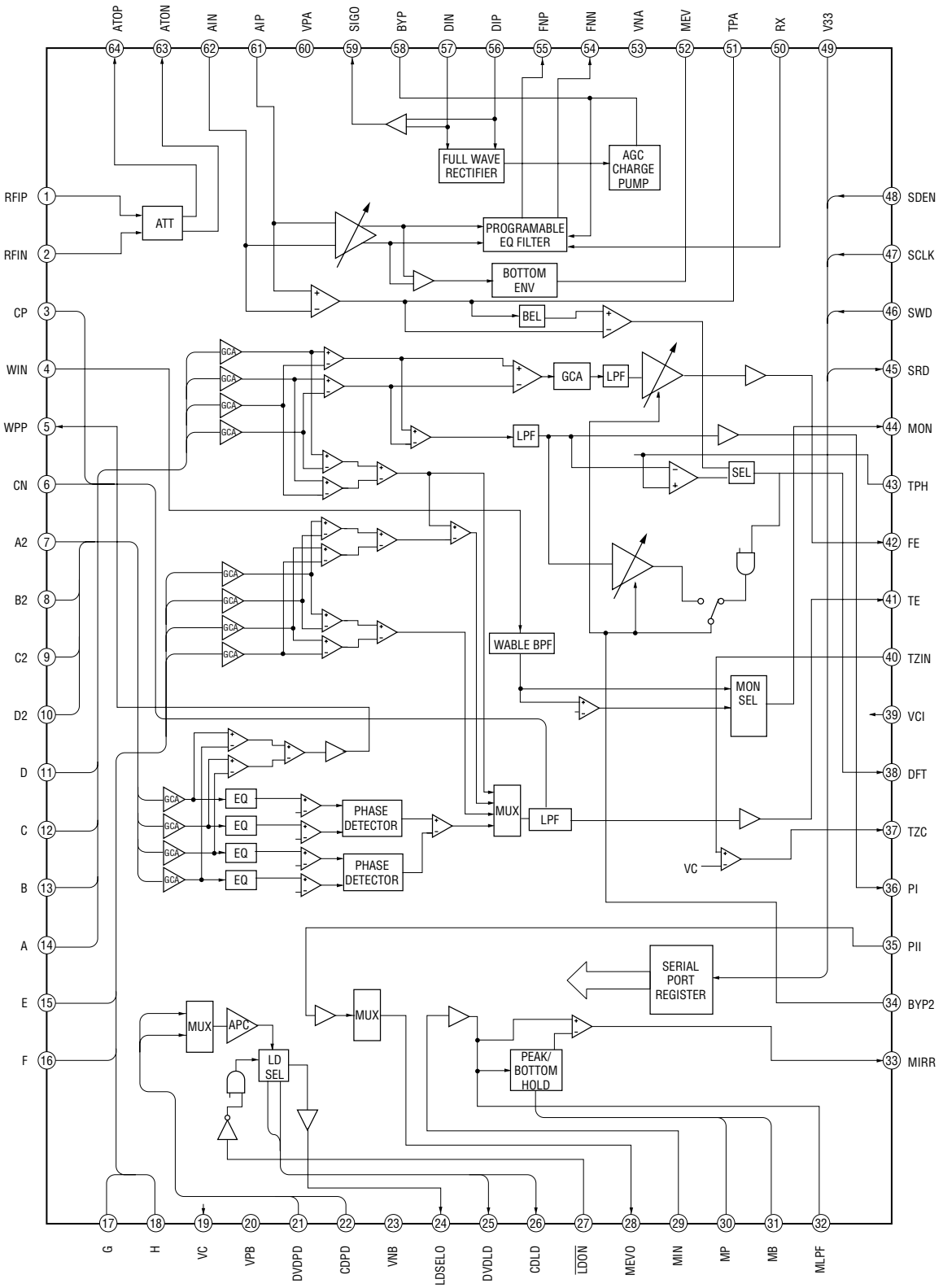
IC701 BA7666FS-E2 (I/O BOARD)



IC604 BU1924F-E2 (I/O BOARD)



IC001 SP3728AC (RF-240 BOARD)



6-24. IC PIN FUNCTION DESCRIPTION

• IC103 MB91307APFV-G-BND-E1 (SYSTEM CONTROL) (DVD BOARD)

Pin No.	Pin Name	I/O	Description
1 to 5	HA17 to 21	O	Address signal output
6	HA22	O	Address signal output (Not used)
7	WP	O	I2C EEPROM write protect signal output
8	TRM/XKRCS	O	Chip select signal output to CXD2752R
9	AVCC	–	Analog power supply
10	AVRH	–	A/D converter reference voltage supply
11	AVSS	–	Analog ground
12	AN0	I	Model and destination setting input
13	AN1	I	Model and destination setting input
14	AN2	I	Model and destination setting input
15	AN3	I	Model and destination setting input
16	INT0	I	Interrupt signal input from CXD1932Q
17	INT1	I	Interrupt signal input from CXD9635R(ARP)
18	INT2	I	Interrupt signal input from CXD9635R(SDSP)
19	INT3	I	Interrupt signal input from CXD2752R
20	INT4	I	Interrupt signal input from µPD703033A
21	INT5	I	Interrupt signal input from CXD2752R
22	INT6	O	Soft mute control signal output to CXD2752R
23	INT7	–	Not used (Open)
24	VCC	–	Power supply
25	SI0	I	Serial data input from µPD703033A
26	SO0	O	Serial data output to µPD703033A
27	SC0	O	Serial clock output to µPD703033A
28	SI1	I	Serial data input from CXD2752R
29	SO1	O	Serial data output to CXD2752R
30	SC1	O	Serial clock output to CXD2752R
31	SI2	I	RS-232C data input (Not used)
32	SO2	O	RS-232C data output (Not used)
33	DSEN3	O	Not used (Open)
34	VSS	–	Ground
35	XRST	O	System reset signal output
36	XARPRST	O	Reset signal output to CXD9635R(ARP)
37	RGBSEL/MICMUTE	–	Not used (Open)
38	SDA	I/O	I2C data input or output
39	SCL	O	I2C clock output
40	TRM+/XKRRST	O	Data request selection signal output (DVD : L, SACD : H)
41	EUROV/Y/CLPSW1	–	Not used (Open)
42	DISCEXT/CLPSW0	–	Not used (Open)
43	MD0	–	Operation mode setting (Connected to Vcc)
44	MD1	–	Operation mode setting (Connected to Ground)
45	MD2	–	Operation mode setting (Connected to Ground)
46	DREQ0	I	DMA-REQ1 signal input
47	DACK0	O	DMA-ACK1 signal output
48	XDRVMUTE	O	Drive mute control signal output to FAN8034
49	DREQ1	I	DMA-REQ0 signal input
50	DACK1	O	DMA-ACK0 signal output
51	XIFCS	O	Chip select signal output to µPD703033A
52	VSS	–	Ground
53	X1	O	Clock (Oscillator) output
54	X0	I	Clock (Oscillator) input

Pin No.	Pin Name	I/O	Description
55	VCC	–	Power supply
56	CKSW1	I	Chucking switch (Tray SW1) signal input
57	OCSW1	I	Open/Close switch (Tray SW2) signal input
58	CS0X	O	Chip select signal output to external ROM
59	CS1X	–	Not used (Open)
60	CS2X	O	Chip select signal output to AVD SDRAM
61	CS3X	O	Chip select signal output to AVD R-BUS
62	CS4X	O	Chip select signal output to CXD9635R (ARP)
63	CS5X	O	Chip select signal output to CXD9635R (SDSP)
64	C	–	Terminal for built-in regulator bypass capacitor
65	CS6X	O	Not used (Open)
66	CS7X	–	Not used (Open)
67	XWAIT	I	external WAIT signal input
68	BGRNTX	I	External bus open aclnowledge signal input (pull-up)
69	BGR	I	Not used
70	XRD	O	External bus read enable signal output
71	XWRH	O	Write signal output for upper byte
72	XWRL	O	Not used (Open)
73	XMIX	–	Not used (Pull-up)
74	HSTX	–	Not used (Pull-up)
75	VSS	–	Ground
76	XFRRST	I	Reset signal input
77	CPUCK	O	Not used (Open)
78	OCSW2	I	Tray switch signal input
79	XDACK	–	Not used (pull-up)
80	VESCS/X39CS	–	Not used (pull-up)
81	48/44.1K	O	48/44.1K clock control signal output
82	WIDE	O	Video wide offset control signal output (Not used)
83	MAMUTE	I	IFOK signal input from uPD703033A
84	XLDON	O	Laser diode ON/OFF signal output
85 to 100	HD0 to15	I/O	External data bus bits 0 - 15
101	VSS	–	Ground
102 to 109	HA0 to 7	O	Address signal output
110	VCC	–	Power supply
111 to 118	HA8 to 15	O	Address signal output
119	VSS	–	Ground
120	HA16	O	Address signal output

• IC302 CXD9635R (SERVO DSP) (DVD BOARD)

Pin No.	Pin Name	I/O	Description
1	VSS	–	Ground
2 to 9	D0 to D7	I/O	System data bus
10	VDD_3.3V	–	Power supply 3.3V
11 to 15	A0 to A4	I	System address bus
16	VAA	–	Ground
17 to 19	A5 to A7	I	System address bus
20	VDD_1.8V	–	Power supply 1.8V
21	XINT	O	Interrupt (ARP) signal output
22	HINT	O	Host interrupt(DSP) signal output
23	XCS	I	Chip select signal input
24	HCS	I	Host servo chip select signal input
25	XWAT	O	Wait signal output
26	VSS	–	Ground
27 to 36	MA0 to MA9	O	DRAM address bus output
37	VDD_3.3V	–	Power supply 3.3V
38	XMWR	O	DRAM write enable signal output
39	XCAS	O	DRAM CAS signal output
40	VSS	–	Ground
41	XRAS	O	DRAM RAS siganl output
42	XOE	O	DRAM output enable siganl output
43	VDD1_1.8V	–	Power supply 1.8V
44 to 51	MD0 to MD7	I/O	DRAM data bus
52	VSS	–	Digital Ground
53 to 60	MD8 to MD15	I/O	DRAM data bus
61	VDD_3.3V	–	Power supply 3.3V
62	DATA	O	CDDA data output
63	BCLK	O	CDDA bit clock signal output
64	VSS	–	Digital Ground
65	LRCK	O	CDDA LR clock signal output
66	DOUT	O	Digital audio data output
67	VDD_1.8V	–	Power supply 1.8V
68	SDCK	O	SD bus clock
69	XSHD	O	SD bus header
70	XSRQ	I	SD bus REQ signal input
71	XSAK	O	SD bus ACK signal output
72	SDEF	O	SD bus error flag
73 to 76	SD0 to SD3	I/O	SD data bus
77	VSS	–	Digital Ground
78 to 81	SD4 to SD7	I/O	SD data bus
82	VDD_3.3V	–	Power supply 3.3V
83 to 88	MNT0 to 5	I/O	Monitor data bus (Not used)
89, 90	MNT6, 7	I/O	Not used (Pull-up)
91	ESTB	O	Not used
92	VDD_1.8V	–	Power supply 1.8V
93	RFD	–	Not used (Pull-up)
94	VSS	–	Digital Ground
95	PLCKO	O	PLCK siganl output
96 to 103	ADO0 to 7	O	A/D data output
104	VSS	–	Digital Ground
105	VSSA4	–	Analog Ground

Pin No.	Pin Name	I/O	Description
106	VCD	I	VCD control input
107	R1	I	VCD outside resistance 1
108	R2	I	VCD outside resistance 2
109	VDDA4_3.3V	–	Power supply
110	VSSA3	–	Analog Ground
111	INP	I	OP amp positive input
112	INM	I	OP amp negative input
113	FR3	I	Feedback resistance 3
114	FR2	I	Feedback resistance 2
115	FR1	I	Feedback resistance 1
116	Y	O	OP amp output
117	VDDA3_3.3V	–	Power supply
118	VREF	I	DAC referenc voltage input
119	BIAS	I	DAC bias input
120	VDDA2_3.3V	–	Power supply
121	VSSA2	–	Analog Ground
122	AOUT	O	DAC output
123	IREF	I	Reference current input of DAC
124	VSSD2	–	Digital Ground
125	VDDD2_3.3V	–	Power supply
126	VRT	I	ADC reference input
127	VDDA1_3.3V	–	Power supply
128	RFIN2	I	RF input
129	AIN	I	AMP bias voltage input
130	VSSA1	–	Analog Ground
131	RFIN1	I	RF input
132	VRB	I	ADC reference input
133	VSSD1	–	Digital Ground
134	VDDD1_3.3V	–	Power supply
135 to 137	ADC0 to ADC2	I	ADC input
138	VDDA0_3.3V	–	Power supply
139, 140	ADC3, 4	I	ADC input
141	VSSA0	–	Analog ground
142 to 144	ADC5 to ADC7	I	ADC input
145	VDDD0_3.3V	–	Power supply
146	VSSD0	–	Digital ground
147	VRBA	I	ADC reference (Connected ground)
148	VSSA0	–	Analog ground
149	TESTAA	O	Not used (Open)
150	VDDA0_3.3V	–	Power supply
151	VRTA	I	ADC reference input
152	VSS	–	Digital Ground
153 to 155	TESTK0 to 2	I	Test terminal (Connected ground)
156	XDSPRST	I	DSP reset signal input
157	XARPRST	I	Reset signal input
158	VSS	–	Digital Ground
159	MDS0	O	CLV speed error output
160	MON	O	Not used (Open)
161	MDP0	O	CLV phase error output
162	DFCT	O	Defect detection output

Pin No.	Pin Name	I/O	Description
163	JITPWM	O	Jitter PWM output
164	LOCK	O	EFM lock detection (Not used)
165	VDD1_1.8V	–	Power supply 1.8V
166	GIO0/INT2	I	Optical pick-up block limitt signal input
167	GIO1/INT3	O	Spindle motor mute signal output
168	GIO2/INT4	O	TSDM signal output
169	GIO3/INT5	O	Not used (Open)
170	VDD_3.3V	–	Power supply 3.3V
171	GIO4/PGREF	O	Not used (Open)
172	GIO5/PGIN	I	MON signal input
173	GIO6/SDI	I	Serial data input
174	GIO7/SDO	O	Serial data output
175	GIO8/SCK	O	Serial clock output
176	GIO9/FGREF	O	Loading motor control signal output
177	GIO10/FGIN	O	Loading motor control signal output
178	GIO11/TMC2	O	Not used (Open)
179	GIO12	O	Not used (Open)
180	GIO13	O	SDEN signal output
181	VSS	–	Digital Ground
182	CLKIN	I	Clock input
183	VSSA5	–	Analog Ground
184	VDDA5_1.8V	–	Power supply
185	DFCTI	I	Defect input
186	VSS	–	Digital Ground
187	MCKI	I	Clock input
188	VDD_1.8V	–	Power supply 1.8V
189	SCKI	I	System clock input
190	VSS	–	Digital Ground
191	TRST	I	Reset signal input
192	TMS	I	TMS signal input
193	TDI	I	TD input (Not used)
194	TCK	I	TCK signal input
195	TDO	O	TD output
196	TZC	I	TZC input
197	MIRR	I	MIRR input
198	PWM0	O	Sled motor control signal output
199	PWM1	O	Sled motor control signal output
200	PWM2	O	Loading motor control signal output
201	VDD_3.3V	–	Power supply 3.3V
202	PDM0	O	Tracking coil control signal output
203	PDM1	O	Tracking coil control signal output
204	PDM2	O	Focus coil control signal output
205	PDM3	O	Focus coil control signal output
206	VSS	–	Digital Ground
207	XWR	I	Write signal input
208	XRD	I	Read signal input

• IC801 CXD2752R (PLAYBACK SIGNAL PROCESSOR) (DVD BOARD)

Pin No.	Pin Name	I/O	Description
1	VSCA0	–	Ground
2	XMSLAT	I	Latch signal input for MB9130APFV
3	MSCK	I	Shift clock input for MB9130APFV
4	MSDATI	I	Data input for MB9130APFV
5	VDCA0	–	Power supply
6	MSDATO	O	Data output for MB9130APFV
7	MSREADY	O	Output ready flag output for MB9130APFV
8	XMSDOE	O	Not used (Open)
9	XRST	I	Reset signal input
10	SMUTE	I	Soft mute signal input (H:soft mute, L:off)
11	MCKI	I	Master clock input (768Fs 33.8688MHz)
12	VSIOA0	–	Ground
13	EXCKO1	O	External clock output
14	EXCKO2	O	Not used (Open)
15	LRCK	O	Not used (Open)
16	F75HZ	O	Not used (Open)
17	VDIOA0	–	Power supply for (+3.3V)
18 to 25	MNT0 to 7	O	Not used (Open)
26	TCK	I	Test clock input
27	TDI	I	Test data input
28	VSCA1	–	Ground
29	TDO	O	Test data output
30	TMS	I	Test MS input
31	TRST	I	Test reset input
32 to 34	TEST1 to 3	I	Test input (connected to ground)
35	VDCA1	–	Power supply (+2.5V)
36	UBIT	O	Not used (Open)
37	XBIT	O	Not used (Open)
38 to 41	SUPDT0 to 3	O	Not used (Open)
42	VSIOA1	–	Ground
43, 44	SUPDT4 , 5	O	Not used (Open)
45	VDIOA1	–	Power supply (+3.3V)
46, 47	SUPDT6 , 7	O	Not used (Open)
48	SUPEN	O	Not used (Open)
49	VSCA2	–	Ground
50	NC	O	Not used (Open)
51, 52	TEST4 , 5	I	Test input (Pull-down)
53	NC	O	Not used (Open)
54	VDCA2	–	Power supply (+2.5V)
55, 56	NC	O	Not used (Open)
57	BCKASL	I	Bit clock I/O selection signal input for DSD data output (L:slave, H:master)
58	VXDSD0	–	Not used (Open)
59	BCKAI	I	Not used (Open)
60	BCKAO	O	Bit clock output for DSD data output
61	PHREFI	I	Not used (Open)
62	PHREFO	O	Not used (Open)
63	ZDFL	O	Not used (Open)
64	DSAL	O	Lch DSD data output
65	ZDFR	O	Not used (Open)
66	DSAR	O	Rch DSD data output

Pin No.	Pin Name	I/O	Description
67	VDDSD0	–	Power supply (+3.3V)
68	ZDFC	O	Not used (Open)
69	DSAC	O	Cch DSD data output
70	ZDFLFE	O	Not used (Open)
71	DSALFE	O	LFEch DSD data output
72	VSDSD1	–	Ground
73	ZDFLS	O	Not used (Open)
74	DSALS	O	LSch DSD data output
75	ZDFRS	O	Not used (Open)
76	DSARS	O	RSch DSD data output
77	VDDSD1	–	Power supply (+3.3V)
78, 79	IOUT0 - 1	O	Not used (Open)
80	VSCB0	–	Ground
81, 82	IOUT2 - 3	O	Not used (Open)
83	VDCB0	–	Power supply (+2.5V)
84, 85	IOUT4 -5	O	Not used (Open)
86	VSIOB0	–	Ground
87	IANCO	O	Not used (Open)
88	IFULL	I	Not used (Pull-down)
89	IEMPTY	I	Not used (Pull-down)
90	VDIOB0	–	Power supply (+3.3V)
91	IFRM	O	Not used (Open)
92	IOUTE	O	Not used (Open)
93	IBCK	O	Not used (Open)
94	VSCB1	–	Ground
95	IERR	I	Not used (Pull-up)
96	IANCI	I	Not used (Pull-down)
97	IPLAN	I	Not used (Pull-up)
98	IHOLD	O	Not used (Open)
99	VDCB1	–	Power supply (+2.5V)
100	IVLD	I	Not used (Pull-down)
101 to 105	IDIN0 to 4	I	Not used (Pull-down)
106	VSIOB1	–	Ground
107 to 109	IDIN5 to7	I	Not used (Pull-down)
110	VDIOB1	–	Power supply (+3.3V)
111 to 114	WAD0 to 3	I	A/D data input
115	TESTI	–	Test input (Pull-down)
116	VSCB2	–	Ground
117 to 120	WAD4 to 7	I	A/D data input
121	VDCB2	–	Power supply (+2.5V)
122	WRFD	I	Not used (Pull-down)
123	WCK	I	Clock input
124 , 125	WAVDD0 , 1	–	A/D power supply (+2.5v)
126	WARFI	I	Analog RF signal input
127	WAVRB	I	A/D bottom reference input
128 , 129	WAVSS1 , 0	–	A/D ground
130	VSIOA2	–	Ground
131 to 134	DQ7 to 4	I/O	SDRAM data input/output
135	VDIOA2	–	Not supply (Open)
136 to 139	DQ3 to 0	I/O	SDRAM data input/output

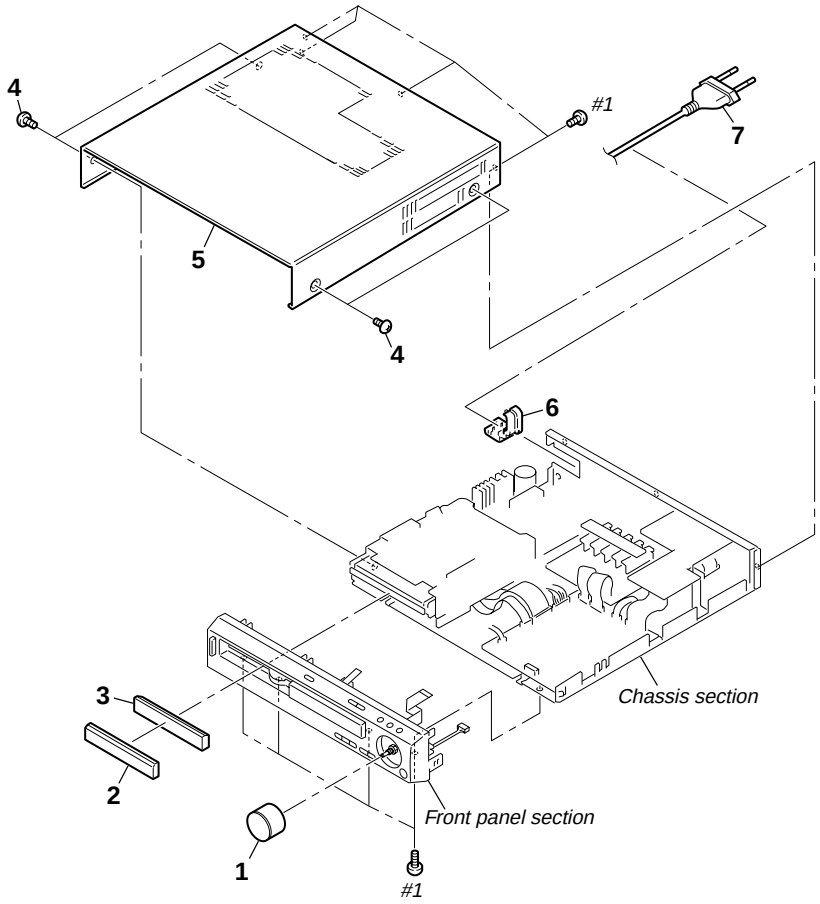
Pin No.	Pin Name	I/O	Description
140	VSIOA3	–	Not used (Open)
141	DCLK	O	Clock output terminal for SDRAM
142	DCKE	O	Clock enable signal output for SDRAM
143	XWE	O	Write enable signal output for SDRAM
144	XCAS	O	Column address strobe signal output for SDRAM
145	XRAS	O	Row address strobe signal output for SDRAM
146	VDIOA3	–	Power supply (+3.3V)
147	NC	O	Not used (Open)
148, 149	A11 ,10	O	Address signal output for SDRAM
150	VSCA3	–	Not used (Open)
151, 152	A9 , 8	O	Address signal output for SDRAM
153	VDCA3	–	Power supply (+2.5V)
154 to 157	A7 to 4	O	Address signal output for SDRAM
158	VSIOA4	–	Not used (Open)
159 to 162	A3 to 0	O	Address signal output for SDRAM
163	VDIOA4	–	Power supply (+3.3V)
164	XSRQ	O	Data request output to CXD9635R
165	XSHD	I	Headder flag input from CXD9635R
166	SDCK	I	Data transfer clock input CXD9635R
167	XSAK	I	Data effective flag input from CXD9635R
168	SDEF	I	Error flag input from CXD9635R
169 to 176	SD0 to7	I	Stream data input from CXD9635R

SECTION 7
EXPLODED VIEWS

NOTE:
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

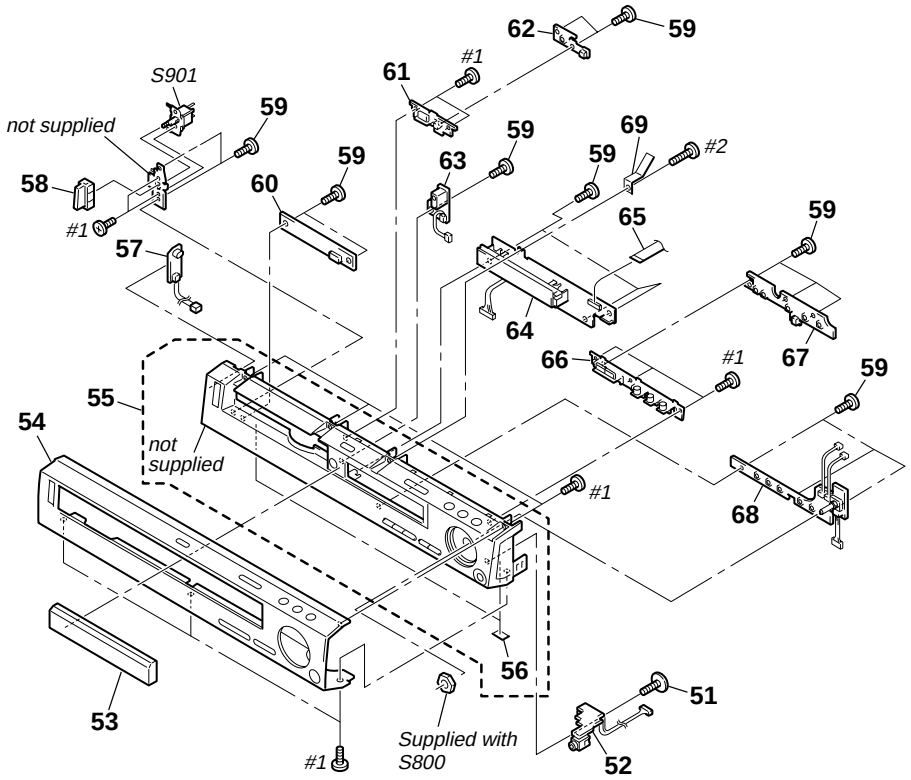
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

7-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	4-240-024-01	KNOB VOLUME	
2	X-4954-633-1	WINDOW SUB ASSY (LID)	
3	4-234-909-01	DVD, LID	
4	4-221-580-01	SCREW, CASE	
5	4-234-913-01	CASE	
* 6	3-703-244-00	BUSHING (2104), CORD	
⚠7	1-769-744-11	CORD, POWER	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	

7-2. FRONT PANEL SECTION

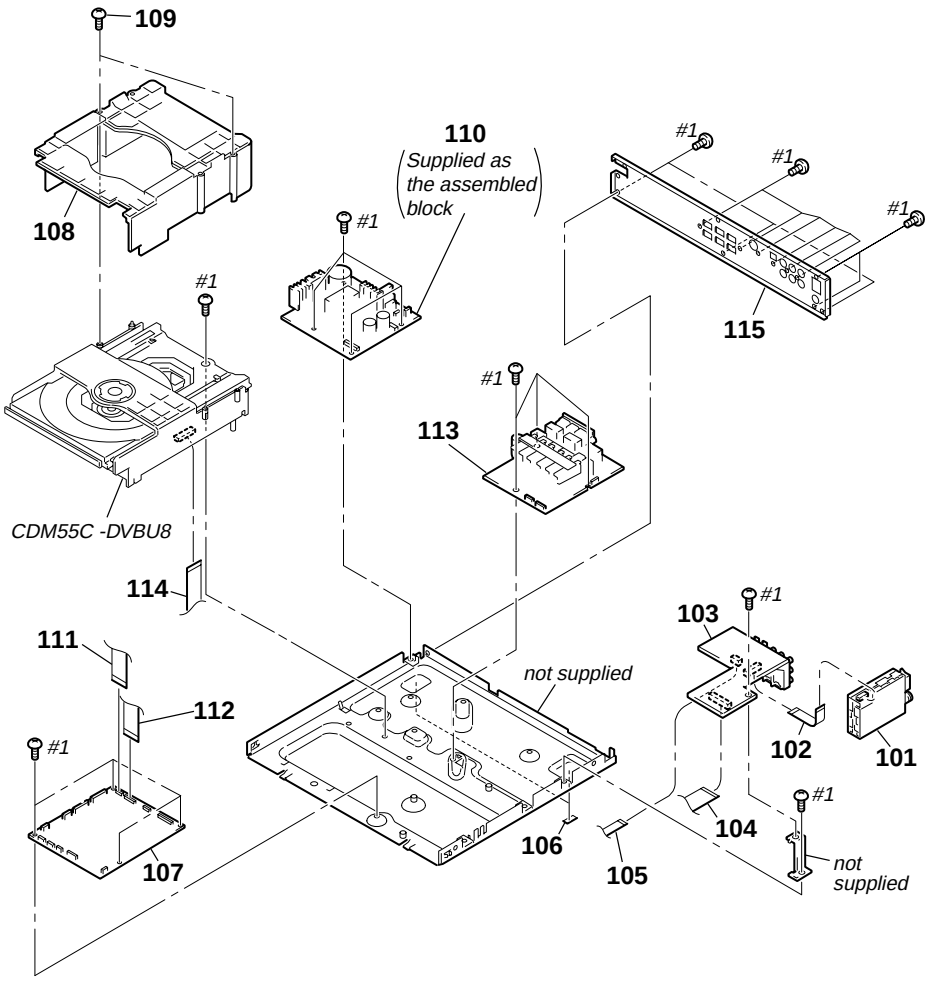


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
51	3-229-336-01	SCREW, +BVWH TAPPING	
52	1-681-996-22	HP-1030 BOARD	
53	X-4954-631-1	FL WINDOW SUB ASSY	
54	4-234-907-21	PANEL (AL), FRONT	
55	X-4954-632-1	FRONT PANEL SUB ASSY	
56	4-234-924-01	FOOT	
57	1-681-994-22	PW-1030 BOARD	
58	X-4953-855-1	BUTTON (POWER) ASSY	
59	4-951-620-01	SCREW (2.6X8), +BVTP	
60	1-681-990-22	DDCON-1030 BOARD	
61	4-234-904-11	BUTTON (EJECT)	

Ref. No.	Part No.	Description	Remark
62	1-681-993-22	SW (B)-1030 BOARD	
63	1-681-995-22	RR-1030 BOARD	
64	A-4728-803-A	FP-1030 BOARD, COMPLETE	
65	1-823-076-11	CABLE, FLEXIBLE FLAT (15 CORE)	
66	4-234-905-11	BUTTON (DVD)	
67	1-681-992-22	SW (A)-1030 BOARD	
68	1-681-991-22	FU-1030 BOARD	
69	4-237-279-01	PLATE (FL), GROUND	
⚠ S901	1-786-210-11	SWITCH, POWER	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#2	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S	

7-3. CHASSIS SECTION

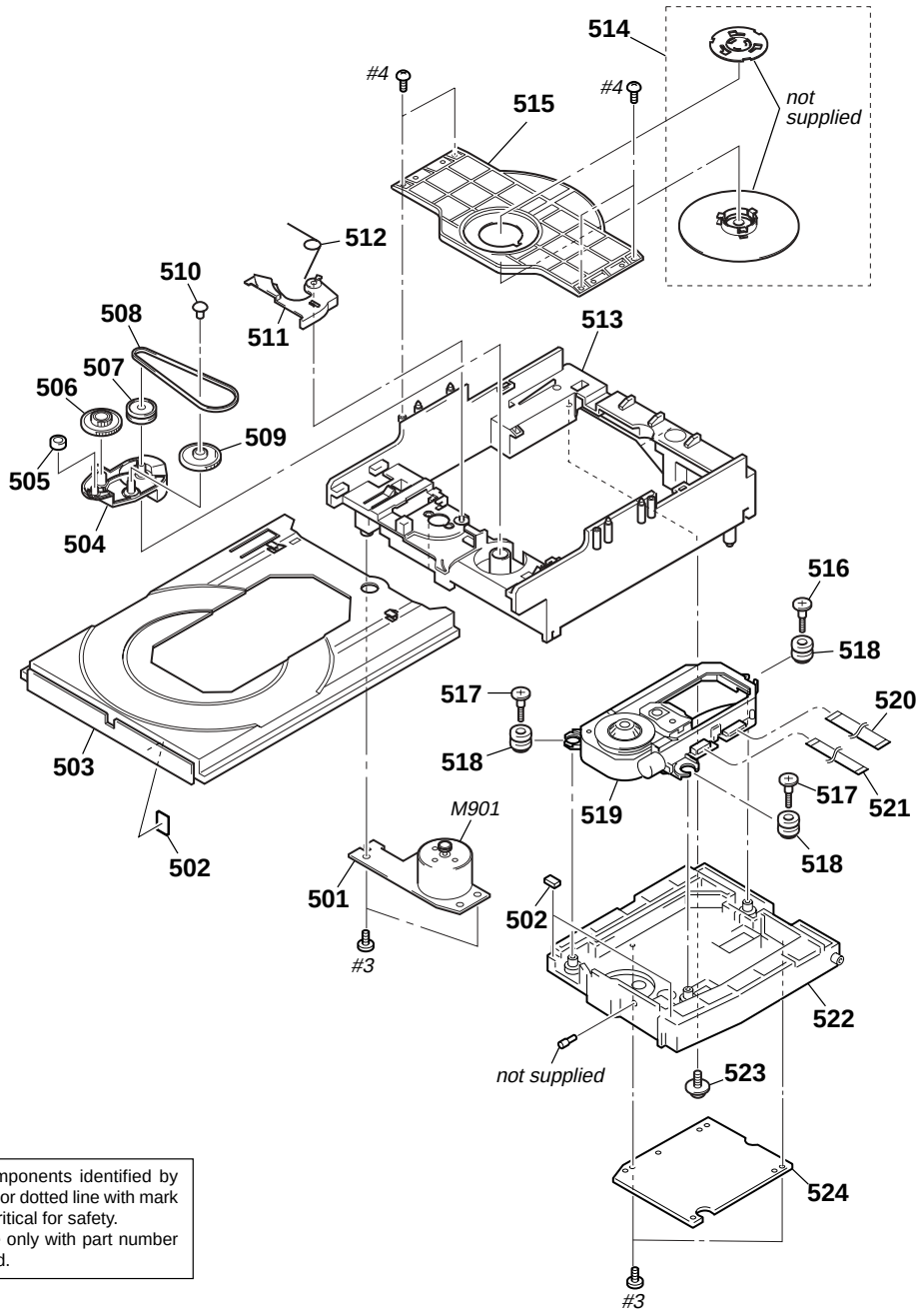


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
101	1-693-586-11	TUNER	
102	1-823-082-11	CABLE, FLEXIBLE FLAT (13 CORE)	
103	A-4728-797-A	I/O BOARD, COMPLETE	
104	1-823-079-11	CABLE, FLEXIBLE FLAT (29 CORE)	
105	1-823-074-11	CABLE, FLEXIBLE FLAT (9 CORE)	
106	4-234-924-01	FOOT	
107	A-4676-502-A	DVD BOARD, COMPLETE (CIS)	
107	A-4728-793-A	DVD BOARD, COMPLETE (AEP,UK)	
108	4-237-232-01	COVER, MD	
109	4-951-620-01	SCREW (2.6X8), +BVTP	

Ref. No.	Part No.	Description	Remark
⚠110	1-761-558-11	REGULATOR, SWITCHING	
111	1-823-075-21	CABLE, FLEXIBLE FLAT (12 CORE)	
112	1-823-353-21	CABLE, FLEXIBLE FLAT (17 CORE)	
113	A-4728-790-A	AMP BOARD, COMPLETE	
114	1-823-354-11	CABLE, FLEXIBLE FLAT (25 CORE)	
115	4-240-416-01	BACK PANEL (AEP,UK)	
115	4-240-416-11	BACK PANEL (CIS)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	

7-4. MECHANISM DECK SECTION (CDM55C-DVBU8)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
501	1-674-336-21	LOADING BOARD	
502	4-925-315-31	DAMPER	
503	4-224-894-11	TRAY (CDM55D)	
504	4-220-233-01	CAM (CDM55)	
505	4-221-815-11	ROLLER	
506	4-220-237-01	GEAR (A)	
507	4-220-234-01	PULLEY (LDG)	
508	4-221-816-11	BELT (CDM55)	
509	4-220-238-01	GEAR (B)	
510	4-227-598-01	SPACER (55)	
511	4-220-229-01	LEVER (SW)	
512	4-220-239-11	SPRING, TORSION	
513	4-227-236-01	CHASSIS	
514	X-4954-059-1	PULLEY (240) ASSY	
515	4-227-218-21	HOLDER (AT)	

Ref. No.	Part No.	Description	Remark
516	4-236-450-01	SCREW (L), STEP	
517	4-981-923-01	SCREW (M), STEP	
518	3-053-847-31	INSULATOR	
⚠519	8-820-144-06	OPTICAL PICK-UP KHM-240AAA (TYPE A)	
⚠519	A-6062-709-A	SERVICE ASSY, KHM-270AAA (TYPE B)	
520	1-823-072-11	CABLE, FLEXIBLE FLAT 26P	
521	1-823-073-11	CABLE, FLEXIBLE FLAT (9 CORE)	
522	4-234-374-01	HOLDER (KHM-240)	
523	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING	
524	A-4726-519-A	RF-240 BOARD, COMPLETE	
M901	A-4672-984-A	MOTOR (LD) ASSY	
#3	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#4	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
⚠	1-770-019-51	ADAPTOR, CONVERSION PLUG (UK)	

SECTION 8
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: µF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: µH
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...
- Refer to servicing notes (page 3) for discrimination of TYPE A/B.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description			Remarks
	A-4728-790-A	AMP BOARD, COMPLETE **********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3			
		< CAPACITOR >			
C300	1-115-819-11	ELECT	2200uF	20%	35V
C301	1-126-965-91	ELECT	22uF	20%	50V
C302	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C303	1-136-157-00	FILM	0.022uF	5%	50V
C304	1-136-157-00	FILM	0.022uF	5%	50V
C305	1-136-165-00	FILM	0.1uF	5%	50V
C306	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C307	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C308	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C309	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C310	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C311	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C312	1-104-665-11	ELECT	100uF	20%	10V
C313	1-136-165-00	FILM	0.1uF	5%	50V
C316	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C317	1-126-948-11	ELECT	100uF	20%	35V
C318	1-104-665-11	ELECT	100uF	20%	10V
C319	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C320	1-104-665-11	ELECT	100uF	20%	10V
C323	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C324	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C325	1-104-665-11	ELECT	100uF	20%	10V
C326	1-126-947-11	ELECT	47uF	20%	10V
C327	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C328	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C329	1-126-934-11	ELECT	220uF	20%	10V
C330	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C331	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C332	1-136-157-00	FILM	0.022uF	5%	50V
C333	1-136-157-00	FILM	0.022uF	5%	50V
C334	1-136-165-00	FILM	0.1uF	5%	50V
C335	1-136-165-00	FILM	0.1uF	5%	50V
C336	1-104-665-11	ELECT	100uF	20%	10V
C337	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C341	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C342	1-126-948-11	ELECT	100uF	20%	35V
C343	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C344	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C345	1-104-665-11	ELECT	100uF	20%	10V
C348	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C349	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C350	1-104-665-11	ELECT	100uF	20%	10V
C351	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C352	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C353	1-136-157-00	FILM	0.022uF	5%	50V
C354	1-136-157-00	FILM	0.022uF	5%	50V
C355	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C356	1-136-165-00	FILM	0.1uF	5%	50V
C357	1-136-165-00	FILM	0.1uF	5%	50V
C358	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C359	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C362	1-104-665-11	ELECT	100uF	20%	10V
C363	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C364	1-126-948-11	ELECT	100uF	20%	35V
C365	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C368	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C372	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C373	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C374	1-136-157-00	FILM	0.022uF	5%	50V
C375	1-136-157-00	FILM	0.022uF	5%	50V
C376	1-136-165-00	FILM	0.1uF	5%	50V
C377	1-136-165-00	FILM	0.1uF	5%	50V
C378	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C381	1-104-665-11	ELECT	100uF	20%	10V
C382	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C383	1-126-948-11	ELECT	100uF	20%	35V
C384	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C387	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C388	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C389	1-104-665-11	ELECT	100uF	20%	10V
C390	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C391	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C392	1-104-665-11	ELECT	100uF	20%	10V
C393	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C394	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C395	1-136-157-00	FILM	0.022uF	5%	50V
C396	1-136-157-00	FILM	0.022uF	5%	50V
C397	1-136-165-00	FILM	0.1uF	5%	50V
C398	1-136-165-00	FILM	0.1uF	5%	50V
C399	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C402	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C403	1-126-948-11	ELECT	100uF	20%	35V
C404	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C405	1-104-665-11	ELECT	100uF	20%	10V
C408	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C409	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C410	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C411	1-136-157-00	FILM	0.022uF	5%	50V

Ref. No.	Part No.	Description			Remarks
C412	1-136-157-00	FILM	0.022uF	5%	50V
C413	1-136-165-00	FILM	0.1uF	5%	50V
C414	1-136-165-00	FILM	0.1uF	5%	50V
C415	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C416	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C419	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C420	1-126-948-11	ELECT	100uF	20%	35V
C421	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C422	1-104-665-11	ELECT	100uF	20%	10V
C425	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C432	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C433	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C434	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C441	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C442	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C443	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C451	1-131-704-11	FILM	1uF	5%	50V
C452	1-131-704-11	FILM	1uF	5%	50V
C453	1-131-704-11	FILM	1uF	5%	50V
C454	1-131-704-11	FILM	1uF	5%	50V
C455	1-131-704-11	FILM	1uF	5%	50V
C456	1-131-704-11	FILM	1uF	5%	50V
C457	1-131-704-11	FILM	1uF	5%	50V
C458	1-131-704-11	FILM	1uF	5%	50V
C459	1-131-704-11	FILM	1uF	5%	50V
C460	1-131-704-11	FILM	1uF	5%	50V
C461	1-131-704-11	FILM	1uF	5%	50V
C462	1-131-704-11	FILM	1uF	5%	50V
C474	1-126-934-11	ELECT	220uF	20%	16V
C484	1-126-934-11	ELECT	220uF	20%	16V
		< CONNECTOR >			
CN301	1-779-280-11	CONNECTOR, FFC(LIF(NON-ZIF))12P			
CN305	1-793-600-11	CONNECTOR, FFC/FPC (ZIF) 17P			
* CN309	1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P			
		< DIODE >			
D330	6-500-131-01	DIODE LI116			
D331	6-500-131-01	DIODE LI116			
D332	6-500-131-01	DIODE LI116			
D333	6-500-131-01	DIODE LI116			
D334	6-500-131-01	DIODE LI116			
D335	6-500-131-01	DIODE LI116			
D340	6-500-131-01	DIODE LI116			
D341	6-500-131-01	DIODE LI116			
D342	6-500-131-01	DIODE LI116			
D343	6-500-131-01	DIODE LI116			
D344	6-500-131-01	DIODE LI116			
D345	6-500-131-01	DIODE LI116			
D351	8-719-404-50	DIODE MA111-TX			
D370	6-500-055-01	DIODE P6SMB33AT3			
D371	6-500-055-01	DIODE P6SMB33AT3			
D372	6-500-055-01	DIODE P6SMB33AT3			
D373	6-500-055-01	DIODE P6SMB33AT3			
D374	6-500-055-01	DIODE P6SMB33AT3			
D375	6-500-055-01	DIODE P6SMB33AT3			
D380	6-500-055-01	DIODE P6SMB33AT3			
D381	6-500-055-01	DIODE P6SMB33AT3			
D382	6-500-055-01	DIODE P6SMB33AT3			
D383	6-500-055-01	DIODE P6SMB33AT3			
D384	6-500-055-01	DIODE P6SMB33AT3			

Ref. No.	Part No.	Description	Remarks
D385	6-500-055-01	DIODE P6SMB33AT3	
		< EARTH TERMINAL >	
* EB301	1-537-738-21	TERMINAL, EARTH	
		< FERRITE BEAD >	
FB300	1-469-760-21	INDUCTOR 0UH	
FB301	1-469-760-21	INDUCTOR 0UH	
FB303	1-400-160-51	INDUCTOR 0UH	
FB304	1-469-760-21	INDUCTOR 0UH	
FB307	1-469-760-21	INDUCTOR 0UH	
FB308	1-469-760-21	INDUCTOR 0UH	
FB309	1-400-160-51	INDUCTOR 0UH	
FB312	1-400-160-51	INDUCTOR 0UH	
FB313	1-400-160-51	INDUCTOR 0UH	
FB314	1-469-760-21	INDUCTOR 0UH	
FB315	1-469-760-21	INDUCTOR 0UH	
FB318	1-400-160-51	INDUCTOR 0UH	
FB320	1-400-160-51	INDUCTOR 0UH	
FB350	1-216-295-91	SHORT CHIP 0	
FB365	1-216-295-91	SHORT CHIP 0	
		< IC >	
IC300	8-759-834-29	IC MC74VHC1G04DFT1	
IC301	6-701-741-01	IC CXD9646B	
IC302	8-759-533-85	IC BA05FP-E2	
IC303	8-759-583-47	IC uPC2933T-E2	
IC304	6-701-741-01	IC CXD9646B	
IC305	6-700-279-01	IC CXD9634Q	
IC306	6-701-741-01	IC CXD9646B	
IC307	6-701-741-01	IC CXD9646B	
IC308	6-700-279-01	IC CXD9634Q	
IC309	6-701-741-01	IC CXD9646B	
IC310	6-700-279-01	IC CXD9634Q	
IC311	6-701-741-01	IC CXD9646B	
IC312	8-759-834-30	IC MC74VHC1G08DFT1	
		< JACK >	
J401	1-694-656-21	TERMINAL BOARD (6CH SPEAKER) (SPEAKER)	
		< JUMPER RESISTOR >	
JR400	1-216-295-91	SHORT CHIP 0	
JR401	1-216-295-91	SHORT CHIP 0	
JR402	1-216-295-91	SHORT CHIP 0	
JR403	1-216-295-91	SHORT CHIP 0	
		< COIL >	
L300	1-216-295-91	SHORT CHIP 0	
L302	1-412-939-11	INDUCTOR 1uH	
L401	1-424-777-11	INDUCTOR 10uH	
L402	1-424-777-11	INDUCTOR 10uH	
L403	1-424-777-11	INDUCTOR 10uH	
L404	1-424-777-11	INDUCTOR 10uH	
L405	1-424-777-11	INDUCTOR 10uH	
L406	1-424-777-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE	

AMP | **DDCON-1030** | **DVD**

Ref. No.	Part No.	Description			Remarks
		< RESISTOR >			
R300	1-216-833-11	METAL CHIP	10K	5%	1/16W
R301	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R302	1-216-857-11	METAL CHIP	1M	5%	1/16W
R303	1-216-833-11	METAL CHIP	10K	5%	1/16W
R304	1-216-801-11	METAL CHIP	22	5%	1/16W
R305	1-216-801-11	METAL CHIP	22	5%	1/16W
R307	1-216-801-11	METAL CHIP	22	5%	1/16W
R308	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R309	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R310	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R311	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R312	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R313	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R315	1-216-809-11	METAL CHIP	100	5%	1/16W
R316	1-216-809-11	METAL CHIP	100	5%	1/16W
R317	1-216-809-11	METAL CHIP	100	5%	1/16W
R318	1-216-809-11	METAL CHIP	100	5%	1/16W
R319	1-216-809-11	METAL CHIP	100	5%	1/16W
R320	1-216-801-11	METAL CHIP	22	5%	1/16W
R321	1-216-801-11	METAL CHIP	22	5%	1/16W
R322	1-216-803-11	METAL CHIP	33	5%	1/16W
R325	1-216-801-11	METAL CHIP	22	5%	1/16W
R330	1-216-801-11	METAL CHIP	22	5%	1/16W
R333	1-216-801-11	METAL CHIP	22	5%	1/16W
R334	1-216-820-11	METAL CHIP	820	5%	1/16W
R335	1-216-801-11	METAL CHIP	22	5%	1/16W
R336	1-216-820-11	METAL CHIP	820	5%	1/16W
R337	1-216-833-11	METAL CHIP	10K	5%	1/16W
R338	1-216-864-11	METAL CHIP	0	5%	1/16W
R339	1-216-814-11	METAL CHIP	270	5%	1/16W
R340	1-216-814-11	METAL CHIP	270	5%	1/16W
R341	1-216-814-11	METAL CHIP	270	5%	1/16W
R342	1-216-814-11	METAL CHIP	270	5%	1/16W
R343	1-216-801-11	METAL CHIP	22	5%	1/16W
R344	1-216-814-11	METAL CHIP	270	5%	1/16W
R346	1-216-864-11	METAL CHIP	0	5%	1/16W
R347	1-216-864-11	METAL CHIP	0	5%	1/16W
R348	1-216-801-11	METAL CHIP	22	5%	1/16W
R349	1-216-801-11	METAL CHIP	22	5%	1/16W
R350	1-216-801-11	METAL CHIP	22	5%	1/16W
R370	1-218-484-11	RES-CHIP	750	5%	1/10W
R410	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R411	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R415	1-216-833-11	METAL CHIP	10K	5%	1/16W
R420	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R421	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R476	1-216-295-91	SHORT CHIP	0		
R486	1-216-295-91	SHORT CHIP	0		
		< RELAY >			
RY301	1-515-920-11	RELAY (24V)			
RY302	1-515-920-11	RELAY (24V)			
RY303	1-515-920-11	RELAY (24V)			
		< VIBRATOR >			
X300	1-795-286-21	VIBRATOR, CRYSTAL (49.152MHz)			
**********					
	1-681-990-22	DDCON-1030 BOARD			
		**********			
		< CAPACITOR >			
C820	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C821	1-126-964-11	ELECT	10uF	20%	50V
C822	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C823	1-126-964-11	ELECT	10uF	20%	50V
C826	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< CONNECTOR >			
* CN806	1-568-943-11	PIN, CONNECTOR 5P			
		< DIODE >			
D806	8-719-404-50	DIODE MA111-TX			
D807	8-719-404-50	DIODE MA111-TX			
D808	8-719-404-50	DIODE MA111-TX			
D809	8-719-404-50	DIODE MA111-TX			
D810	8-719-069-56	DIODE UDZSTE-176.2B			
		< COIL >			
L801	1-412-959-11	INDUCTOR	47uH		
		< TRANSISTOR >			
Q803	8-729-808-42	TRANSISTOR 2SD1624-T			
Q804	8-729-808-42	TRANSISTOR 2SD1624-T			
		< RESISTOR >			
R850	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R855	1-216-809-11	METAL CHIP	100	5%	1/16W
R874	1-216-839-11	METAL CHIP	33K	5%	1/16W
		< TRANSFORMER >			
T801	1-437-416-11	TRANSFORMER, DC-DC CONVERTER			
**********					
	A-4676-502-A	DVD BOARD, COMPLETE (CIS)			
	A-4728-793-A	DVD BOARD, COMPLETE (AEP,UK)			
		**********			
		< CAPACITOR >			
C003	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C004	1-126-204-11	ELECT CHIP	47uF	20%	16V
C005	1-126-246-11	ELECT CHIP	220uF	20%	4V
C006	1-126-204-11	ELECT CHIP	47uF	20%	16V
C008	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C009	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C010	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C011	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C012	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C013	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C014	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C015	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C016	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C017	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C018	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C019	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C103	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C104	1-126-209-11	ELECT CHIP	100uF	20%	4V
C105	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C106	1-164-947-11	CERAMIC CHIP	0.01uF		50V

Ref. No.	Part No.	Description			Remarks
C107	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	50V
C108	1-164-854-11	CERAMIC CHIP	15PF	5%	50V
C109	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C110	1-126-209-11	ELECT CHIP	100uF	20%	4V
C111	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C112	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C113	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C114	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C116	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C119	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C124	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C304	1-126-246-11	ELECT CHIP	220uF	20%	4V
C305	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C306	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C307	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C309	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C310	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C311	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C312	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C313	1-127-772-81	CERAMIC CHIP	33000PF	10%	10V
C315	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C317	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C318	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C319	1-137-987-81	CERAMIC CHIP	0.068uF	10%	10V
C320	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C321	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C322	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C323	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C324	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C325	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C326	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C327	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C328	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C331	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C332	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C333	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C334	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C335	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C336	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C337	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C338	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C339	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C340	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C341	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C342	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C343	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C344	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C345	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C346	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C347	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C348	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C349	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C350	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C351	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C401	1-127-988-81	CERAMIC CHIP	15000PF	10%	16V
C402	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
C403	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C404	1-164-938-11	CERAMIC CHIP	0.0015uF	10%	50V
C405	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C406	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C407	1-164-882-11	CERAMIC CHIP	220PF	5%	16V

Ref. No.	Part No.	Description			Remarks
C408	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C411	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C412	1-127-772-81	CERAMIC CHIP	33000PF	10%	10V
C413	1-127-772-81	CERAMIC CHIP	33000PF	10%	10V
C414	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C415	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C416	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C417	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C418	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C419	1-117-681-11	ELECT CHIP	100uF	20%	16V
C420	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C421	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C427	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C428	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C429	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C430	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C501	1-126-193-11	ELECT	1uF	20%	50V
C502	1-117-370-11	CERAMIC CHIP	10uF		10V
C504	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C506	1-117-370-11	CERAMIC CHIP	10uF		10V
C508	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C509	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C510	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C511	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C512	1-126-246-11	ELECT CHIP	220uF	20%	4V
C513	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C514	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C516	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C518	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C519	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C520	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C521	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C522	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C523	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C524	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C525	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C526	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C529	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C530	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C531	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C532	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C533	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C534	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C535	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C536	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C537	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C538	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C539	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C540	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C541	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C542	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C545	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C546	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C547	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C552	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C600	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C601	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C602	1-117-681-11	ELECT CHIP	100uF	20%	16V
C603	1-164-858-11	CERAMIC CHIP	22PF	5%	50V
C604	1-164-868-11	CERAMIC CHIP	56PF	5%	50V
C605	1-107-820-11	CERAMIC CHIP	0.1uF		16V

DVD

Ref. No.	Part No.	Description			Remarks
C606	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C607	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C608	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C609	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C610	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C611	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C612	1-117-370-11	CERAMIC CHIP	10uF		10V
C613	1-117-370-11	CERAMIC CHIP	10uF		10V
C614	1-124-779-00	ELECT CHIP	10uF	20%	16V
C615	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C616	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C617	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C618	1-124-779-00	ELECT CHIP	10uF	20%	16V
C619	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C620	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C621	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C622	1-124-779-00	ELECT CHIP	10uF	20%	16V
C623	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	50V
C624	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C625	1-124-779-00	ELECT CHIP	10uF	20%	16V
C626	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C627	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C628	1-124-779-00	ELECT CHIP	10uF	20%	16V
C629	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C630	1-117-370-11	CERAMIC CHIP	10uF		10V
C631	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C632	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C633	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C634	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C635	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C636	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C637	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C638	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C639	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C640	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C641	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C642	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C643	1-126-246-11	ELECT CHIP	220uF	20%	4V
C644	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C645	1-124-779-00	ELECT CHIP	10uF	20%	16V
C646	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C647	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C648	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C650	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C651	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C652	1-126-246-11	ELECT CHIP	220uF	20%	4V
C653	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C654	1-117-681-11	ELECT CHIP	100uF	20%	16V
C656	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C657	1-117-370-11	CERAMIC CHIP	10uF		10V
C658	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C659	1-124-779-00	ELECT CHIP	10uF	20%	16V
C660	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C661	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C662	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C663	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C664	1-124-779-00	ELECT CHIP	10uF	20%	16V
C665	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C666	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C667	1-117-370-11	CERAMIC CHIP	10uF		10V
C668	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C669	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C670	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C671	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C672	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C673	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C674	1-117-370-11	CERAMIC CHIP	10uF		10V
C675	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C676	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C677	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C678	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C679	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C680	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C801	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C802	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C804	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C808	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C812	1-126-209-11	ELECT CHIP	100uF	20%	4V
C814	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C815	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C816	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C817	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C819	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C820	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C821	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C822	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C823	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C824	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C825	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C826	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C827	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C828	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C829	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C830	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C831	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C832	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C833	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C834	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C835	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C836	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C837	1-117-370-11	CERAMIC CHIP	10uF		10V
C900	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C901	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C902	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C905	1-164-930-11	CERAMIC CHIP	330PF	5%	16V
C906	1-164-930-11	CERAMIC CHIP	330PF	5%	16V
C907	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C908	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C909	1-164-222-91	CERAMIC CHIP	0.22uF		25V
C910	1-104-905-11	CAPACITOR	0.22F		5.5V
C911	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C912	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C913	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C914	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C915	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C917	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C918	1-164-874-11	CERAMIC CHIP	100PF	5%	50V

< CONNECTOR >

CN001	1-784-371-21	CONNECTOR, FFC/FPC 12P	
CN002	1-778-957-11	CONNECTOR, FFC/FPC 29P	
CN003	1-784-368-11	CONNECTOR, FFC/FPC 9P	

Ref. No.	Part No.	Description	Remarks
CN004	1-784-376-11	CONNECTOR, FFC/FPC 17P	
CN005	1-784-374-21	CONNECTOR, FFC/FPC 15P	
CN008	1-794-032-21	PIN, CONNECTOR (PC BOARD) 11P	
CN009	1-784-368-11	CONNECTOR, FFC/FPC 9P	
CN010	1-784-382-21	CONNECTOR, FFC/FPC 25P	
CN101	1-784-367-11	CONNECTOR, FFC/FPC 8P	
CN103	1-793-687-11	PIN, CONNECTOR (1.5MM) (SMD)5P	
CN402	1-793-687-11	PIN, CONNECTOR (1.5MM) (SMD)5P	
CN404	1-793-687-11	PIN, CONNECTOR (1.5MM) (SMD)5P	
CN900	1-784-367-11	CONNECTOR, FFC/FPC 8P	
		< DIODE >	
D900	8-719-053-18	DIODE 1SR154-400TE-25	
D901	8-719-053-18	DIODE 1SR154-400TE-25	
D902	8-719-988-61	DIODE 1SS355TE-17	
D903	8-719-988-61	DIODE 1SS355TE-17	
D904	8-719-988-61	DIODE 1SS355TE-17	
		< FERRITE BEAD >	
FB001	1-469-324-21	FERRITE 0UH	
FB003	1-469-324-21	FERRITE 0UH	
FB004	1-469-681-21	INDUCTOR 0UH	
FB005	1-469-324-21	FERRITE 0UH	
FB006	1-469-324-21	FERRITE 0UH	
FB007	1-469-324-21	FERRITE 0UH	
FB008	1-469-324-21	FERRITE 0UH	
FB009	1-469-324-21	FERRITE 0UH	
FB010	1-469-324-21	FERRITE 0UH	
FB011	1-469-324-21	FERRITE 0UH	
FB012	1-469-324-21	FERRITE 0UH	
FB013	1-469-324-21	FERRITE 0UH	
FB014	1-469-324-21	FERRITE 0UH	
FB112	1-469-681-21	INDUCTOR 0UH	
FB603	1-469-324-21	FERRITE 0UH	
FB605	1-469-324-21	FERRITE 0UH	
FB901	1-469-324-21	FERRITE 0UH	
		< FILTER >	
FL003	1-234-177-21	FERRITE 0UH	
FL004	1-234-177-21	FERRITE 0UH	
FL005	1-233-893-21	FILTER, CHIP EMI	
FL006	1-234-177-21	FERRITE 0UH	
FL101	1-233-893-21	FILTER, CHIP EMI	
FL102	1-233-893-21	FILTER, CHIP EMI	
FL103	1-233-893-21	FILTER, CHIP EMI	
FL501	1-233-893-21	FILTER, CHIP EMI	
FL502	1-233-893-21	FILTER, CHIP EMI	
FL505	1-234-177-21	FERRITE 0UH	
FL603	1-234-177-21	FERRITE 0UH	
FL604	1-234-177-21	FERRITE 0UH	
FL605	1-234-177-21	FERRITE 0UH	
FL606	1-234-177-21	FERRITE 0UH	
FL801	1-233-893-21	FILTER, CHIP EMI	
FL802	1-233-893-21	FILTER, CHIP EMI	
FL803	1-233-893-21	FILTER, CHIP EMI	
		< IC >	
IC001	8-759-460-72	IC BA033FP-E2	
IC002	8-759-052-52	IC NJM78M05DL1A-TE1	
IC003	8-759-052-52	IC NJM78M05DL1A-TE1	
IC004	8-759-473-95	IC uPC2905T-E1	
IC005	8-759-460-72	IC BA033FP-E2	
IC006	6-700-398-01	IC uPC2918T-E1	
IC101	8-759-640-41	IC BR24C08F-E2	
IC102	6-701-877-01	IC SM8707EV-G-E2	
IC103	8-759-829-75	IC MB91307APFV-G-BND-E1	
IC106	6-700-785-01	IC SN74AHCT32PWR	
IC108	6-801-604-01	IC MR27V3202F-2CTPZ020	
IC302	8-759-828-01	IC CXD9635R	
IC303	8-759-683-75	IC MSM51V8160F-60TSKR1	
IC304	8-759-680-48	IC TC7WH157FK(TE85R)	
IC401	8-759-826-42	IC FAN8034	
IC501	8-759-832-30	IC TK71518ASCL	
IC503	8-752-399-55	IC CXD1932Q	
IC504	6-700-353-01	IC MT48LC1M16A1TG-6STR	
IC505	6-700-353-01	IC MT48LC1M16A1TG-6STR	
IC600	8-759-052-52	IC NJM78M05DL1A-TE1	
IC601	6-701-011-01	IC uPC2910T-E1	
IC602	8-759-560-56	IC PCM1800E/2K	
IC603	8-759-337-40	IC NJM2904V(TE2)	
IC604	6-700-983-01	IC IS61LV6416-15T(ICSI)	
IC605	8-759-835-63	IC NJM2391DL1-26(TE1)	
IC606	8-759-825-15	IC LC89056W-E	
IC607	8-759-698-76	IC CXD9617R	
IC608	8-759-825-13	IC PCM1748E/2K	
IC610	8-759-337-40	IC NJM2904V(TE2)	
IC612	6-700-278-01	IC CXD9633Q	
IC801	8-752-407-50	IC CXD2752R	
IC802	8-759-585-52	IC SN74AHC1GU04DBVR	
IC803	6-701-120-01	IC W981616BH-7-EL10	
IC804	8-759-637-50	IC TA48M025F(TE16L)	
IC900	8-759-238-47	IC TC74HCT7007AF(EL)	
IC901	6-801-641-01	IC uPD703033AYGF-M42-3BA	
IC902	8-759-828-32	IC PT8300	
IC903	8-759-427-92	IC PST9126NL	
IC904	8-759-326-78	IC PST9140NL	
		< JUMPER WIRE >	
JW900	1-218-941-81	RES-CHIP 100 5% 1/16W	
JW901	1-218-941-81	RES-CHIP 100 5% 1/16W	
JW902	1-218-941-81	RES-CHIP 100 5% 1/16W	
		< COIL >	
L600	1-414-754-11	INDUCTOR 10uH	
L601	1-414-754-11	INDUCTOR 10uH	
L602	1-414-754-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q001	8-729-901-00	TRANSISTOR DTC124EK	
Q002	6-550-220-01	TRANSISTOR 2SB906(TE16L)	
Q900	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q901	8-729-230-63	TRANSISTOR 2SC4116-YG	
Q902	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q903	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L	
Q906	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L	
Q907	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L	
Q908	8-729-901-00	TRANSISTOR DTC124EK	
Q909	8-729-901-00	TRANSISTOR DTC124EK	
Q910	8-729-901-00	TRANSISTOR DTC124EK	
		< RESISTOR >	

DVD

Ref. No.	Part No.	Description			Remarks
R009	1-218-953-11	RES-CHIP	1K	5%	1/16W
R011	1-218-949-11	RES-CHIP	470	5%	1/16W
R060	1-216-864-11	METAL CHIP	0	5%	1/16W
R076	1-216-837-11	METAL CHIP	22K	5%	1/10W (TYPE A)
R077	1-216-815-11	METAL CHIP	330	5%	1/10W (TYPE A)
R077	1-216-833-11	METAL CHIP	10K	5%	1/10W (TYPE B)
R078	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R079	1-216-801-11	METAL CHIP		22 5%	1/10W (TYPE A)
R079	1-216-845-11	METAL CHIP	100K	5%	1/10W (TYPE B)
R101	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R105	1-218-965-11	RES-CHIP	10K	5%	1/16W
R106	1-218-965-11	RES-CHIP	10K	5%	1/16W
R107	1-218-941-81	RES-CHIP	100	5%	1/16W
R109	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R111	1-218-949-11	RES-CHIP	470	5%	1/16W
R112	1-218-953-11	RES-CHIP	1K	5%	1/16W
R113	1-218-965-11	RES-CHIP	10K	5%	1/16W
R114	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R116	1-218-965-11	RES-CHIP	10K	5%	1/16W
R117	1-218-953-11	RES-CHIP	1K	5%	1/16W
R118	1-218-953-11	RES-CHIP	1K	5%	1/16W
R119	1-218-965-11	RES-CHIP	10K	5%	1/16W
R121	1-218-965-11	RES-CHIP	10K	5%	1/16W
R122	1-218-965-11	RES-CHIP	10K	5%	1/16W
R123	1-218-965-11	RES-CHIP	10K	5%	1/16W
R124	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R125	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R126	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R128	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R129	1-218-965-11	RES-CHIP	10K	5%	1/16W
R130	1-218-965-11	RES-CHIP	10K	5%	1/16W
R131	1-218-965-11	RES-CHIP	10K	5%	1/16W
R132	1-218-965-11	RES-CHIP	10K	5%	1/16W
R133	1-218-965-11	RES-CHIP	10K	5%	1/16W
R134	1-218-965-11	RES-CHIP	10K	5%	1/16W
R136	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R137	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R138	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R140	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R143	1-218-965-11	RES-CHIP	10K	5%	1/16W
R145	1-218-965-11	RES-CHIP	10K	5%	1/16W
R146	1-218-965-11	RES-CHIP	10K	5%	1/16W
R147	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R149	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R150	1-218-965-11	RES-CHIP	10K	5%	1/16W (CIS)
R150	1-218-967-11	RES-CHIP	15K	5%	1/16W (AEP,UK)
R151	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R153	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R154	1-218-965-11	RES-CHIP	10K	5%	1/16W (CIS)
R154	1-218-975-11	RES-CHIP	68K	5%	1/16W (AEP,UK)
R155	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R156	1-218-965-11	RES-CHIP	10K	5%	1/16W
R163	1-218-965-11	RES-CHIP	10K	5%	1/16W
R164	1-218-941-81	RES-CHIP	100	5%	1/16W
R165	1-218-941-81	RES-CHIP	100	5%	1/16W
R166	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R167	1-218-953-11	RES-CHIP	1K	5%	1/16W
R168	1-218-953-11	RES-CHIP	1K	5%	1/16W
R170	1-218-953-11	RES-CHIP	1K	5%	1/16W
R172	1-218-965-11	RES-CHIP	10K	5%	1/16W
R174	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R176	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R177	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R178	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R179	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R182	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R183	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R184	1-218-965-11	RES-CHIP	10K	5%	1/16W
R185	1-218-965-11	RES-CHIP	10K	5%	1/16W
R186	1-218-965-11	RES-CHIP	10K	5%	1/16W
R187	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R188	1-218-965-11	RES-CHIP	10K	5%	1/16W
R199	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
R299	1-218-979-11	RES-CHIP	150K	5%	1/16W
R301	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R302	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R305	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R306	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R307	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R308	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R309	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R310	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R311	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R312	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R313	1-218-949-11	RES-CHIP	470	5%	1/16W
R314	1-218-949-11	RES-CHIP	470	5%	1/16W
R315	1-218-949-11	RES-CHIP	470	5%	1/16W
R316	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R317	1-218-965-11	RES-CHIP	10K	5%	1/16W
R319	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R321	1-218-949-11	RES-CHIP	470	5%	1/16W
R328	1-218-965-11	RES-CHIP	10K	5%	1/16W
R331	1-208-643-11	RES-CHIP	22	5%	1/16W
R334	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R335	1-208-691-11	METAL CHIP	2.2K	0.5%	1/16W
R336	1-218-965-11	RES-CHIP	10K	5%	1/16W
R337	1-218-941-81	RES-CHIP	100	5%	1/16W
R338	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R341	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R342	1-208-719-11	METAL CHIP	33K	0.5%	1/16W
R343	1-218-945-11	METAL CHIP	220	0.5%	1/16W
R344	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R345	1-218-965-11	RES-CHIP	10K	5%	1/16W
R349	1-218-970-11	RES-CHIP	27K	5%	1/16W
R350	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R351	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R352	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R356	1-208-689-11	METAL CHIP	1.8K	0.5%	1/16W
R368	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R384	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R385	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R402	1-218-965-11	RES-CHIP	10K	5%	1/16W
R403	1-218-965-11	RES-CHIP	10K	5%	1/16W
R404	1-218-953-11	RES-CHIP	1K	5%	1/16W
R405	1-218-953-11	RES-CHIP	1K	5%	1/16W
R406	1-218-978-11	RES-CHIP	120K	5%	1/16W
R407	1-218-978-11	RES-CHIP	120K	5%	1/16W
R408	1-218-979-11	RES-CHIP	150K	5%	1/16W
R409	1-218-979-11	RES-CHIP	150K	5%	1/16W
R410	1-218-974-11	RES-CHIP	56K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R411	1-218-974-11	RES-CHIP	56K	5%	1/16W
R412	1-218-982-11	RES-CHIP	270K	5%	1/16W
R413	1-218-965-11	RES-CHIP	10K	5%	1/16W
R414	1-218-985-11	RES-CHIP	470K	5%	1/16W
R415	1-218-978-11	RES-CHIP	120K	5%	1/16W
R416	1-218-987-11	RES-CHIP	680K	5%	1/16W
R417	1-218-965-11	RES-CHIP	10K	5%	1/16W
R418	1-218-971-11	RES-CHIP	33K	5%	1/16W
R419	1-218-971-11	RES-CHIP	33K	5%	1/16W
R420	1-218-985-11	RES-CHIP	470K	5%	1/16W
R421	1-218-971-11	RES-CHIP	33K	5%	1/16W
R422	1-218-971-11	RES-CHIP	33K	5%	1/16W
R423	1-208-719-11	METAL CHIP	33K	0.5%	1/16W
R424	1-208-719-11	METAL CHIP	33K	0.5%	1/16W
R425	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R426	1-218-985-11	RES-CHIP	470K	5%	1/16W
R427	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R428	1-218-971-11	RES-CHIP	33K	5%	1/16W
R429	1-218-974-11	METAL CHIP	56K	0.5%	1/16W
R430	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R431	1-218-974-11	METAL CHIP	56K	0.5%	1/16W
R432	1-218-965-11	RES-CHIP	10K	5%	1/16W
R433	1-218-965-11	RES-CHIP	10K	5%	1/16W
R434	1-218-947-11	RES-CHIP	330	5%	1/16W
R435	1-218-965-11	RES-CHIP	10K	5%	1/16W
R436	1-218-941-81	RES-CHIP	100	5%	1/16W
R507	1-218-941-81	RES-CHIP	100	5%	1/16W
R510	1-218-965-11	RES-CHIP	10K	5%	1/16W
R511	1-218-945-11	RES-CHIP	220	5%	1/16W
R512	1-218-945-11	RES-CHIP	220	5%	1/16W
R513	1-218-945-11	RES-CHIP	220	5%	1/16W
R514	1-218-945-11	RES-CHIP	220	5%	1/16W
R515	1-218-945-11	RES-CHIP	220	5%	1/16W
R516	1-218-945-11	RES-CHIP	220	5%	1/16W
R517	1-218-965-11	RES-CHIP	10K	5%	1/16W
R518	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R522	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R524	1-218-965-11	RES-CHIP	10K	5%	1/16W
R525	1-218-965-11	RES-CHIP	10K	5%	1/16W
R532	1-218-965-11	RES-CHIP	10K	5%	1/16W
R533	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R554	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R593	1-218-953-11	RES-CHIP	1K	5%	1/16W
R596	1-218-953-11	RES-CHIP	1K	5%	1/16W
R600	1-218-941-81	RES-CHIP	100	5%	1/16W
R602	1-218-989-11	RES-CHIP	1M	5%	1/16W
R603	1-218-941-81	RES-CHIP	100	5%	1/16W
R604	1-218-941-81	RES-CHIP	100	5%	1/16W
R605	1-218-941-81	RES-CHIP	100	5%	1/16W
R606	1-218-941-81	RES-CHIP	100	5%	1/16W
R607	1-218-941-81	RES-CHIP	100	5%	1/16W
R608	1-218-953-11	RES-CHIP	1K	5%	1/16W
R609	1-218-949-11	RES-CHIP	470	5%	1/16W
R610	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R611	1-218-941-81	RES-CHIP	100	5%	1/16W
R612	1-218-973-11	RES-CHIP	47K	5%	1/16W
R613	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R614	1-218-971-11	RES-CHIP	33K	5%	1/16W
R615	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R616	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R618	1-218-961-11	RES-CHIP	4.7K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R619	1-218-973-11	RES-CHIP	47K	5%	1/16W
R620	1-218-941-81	RES-CHIP	100	5%	1/16W
R621	1-218-941-81	RES-CHIP	100	5%	1/16W
R622	1-218-941-81	RES-CHIP	100	5%	1/16W
R623	1-218-941-81	RES-CHIP	100	5%	1/16W
R624	1-218-941-81	RES-CHIP	100	5%	1/16W
R625	1-218-953-11	RES-CHIP	1K	5%	1/16W
R626	1-218-953-11	RES-CHIP	1K	5%	1/16W
R627	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R628	1-218-941-81	RES-CHIP	100	5%	1/16W
R629	1-218-941-81	RES-CHIP	100	5%	1/16W
R630	1-218-949-11	RES-CHIP	470	5%	1/16W
R631	1-218-941-81	RES-CHIP	100	5%	1/16W
R634	1-218-953-11	RES-CHIP	1K	5%	1/16W
R635	1-218-965-11	RES-CHIP	10K	5%	1/16W
R636	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R637	1-218-941-81	RES-CHIP	100	5%	1/16W
R639	1-218-941-81	RES-CHIP	100	5%	1/16W
R640	1-218-941-81	RES-CHIP	100	5%	1/16W
R642	1-218-941-81	RES-CHIP	100	5%	1/16W
R644	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R645	1-218-965-11	RES-CHIP	10K	5%	1/16W
R646	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R647	1-218-941-81	RES-CHIP	100	5%	1/16W
R648	1-218-941-81	RES-CHIP	100	5%	1/16W
R650	1-218-941-81	RES-CHIP	100	5%	1/16W
R651	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R652	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R653	1-218-941-81	RES-CHIP	100	5%	1/16W
R654	1-218-941-81	RES-CHIP	100	5%	1/16W
R655	1-218-941-81	RES-CHIP	100	5%	1/16W
R657	1-218-941-81	RES-CHIP	100	5%	1/16W
R658	1-218-941-81	RES-CHIP	100	5%	1/16W
R659	1-218-935-11	RES-CHIP	33	5%	1/16W
R660	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R661	1-218-941-81	RES-CHIP	100	5%	1/16W
R662	1-218-941-81	RES-CHIP	100	5%	1/16W
R663	1-218-941-81	RES-CHIP	100	5%	1/16W
R664	1-218-941-81	RES-CHIP	100	5%	1/16W
R665	1-218-965-11	RES-CHIP	10K	5%	1/16W
R666	1-218-941-81	RES-CHIP	100	5%	1/16W
R667	1-218-941-81	RES-CHIP	100	5%	1/16W
R668	1-218-953-11	RES-CHIP	1K	5%	1/16W
R669	1-218-953-11	RES-CHIP	1K	5%	1/16W
R671	1-218-941-81	RES-CHIP	100	5%	1/16W
R672	1-218-941-81	RES-CHIP	100	5%	1/16W
R673	1-218-945-11	RES-CHIP	220	5%	1/16W
R674	1-218-945-11	RES-CHIP	220	5%	1/16W
R675	1-218-945-11	RES-CHIP	220	5%	1/16W
R676	1-218-945-11	RES-CHIP	220	5%	1/16W
R677	1-218-945-11	RES-CHIP	220	5%	1/16W
R679	1-218-941-81	RES-CHIP	100	5%	1/16W
R680	1-218-941-81	RES-CHIP	100	5%	1/16W
R682	1-218-965-11	RES-CHIP	10K	5%	1/16W
R684	1-218-965-11	RES-CHIP	10K	5%	1/16W
R685	1-218-941-81	RES-CHIP	100	5%	1/16W
R686	1-218-965-11	RES-CHIP	10K	5%	1/16W
R687	1-218-953-11	RES-CHIP	1K	5%	1/16W
R688	1-218-965-11	RES-CHIP	10K	5%	1/16W
R689	1-218-965-11	RES-CHIP	10K	5%	1/16W
R692	1-218-941-81	RES-CHIP	100	5%	1/16W

DVD | **FP-1030**

Ref. No.	Part No.	Description			Remarks
R695	1-218-941-81	RES-CHIP	100	5%	1/16W
R696	1-218-945-11	RES-CHIP	220	5%	1/16W
R699	1-218-941-81	RES-CHIP	100	5%	1/16W
R700	1-218-965-11	RES-CHIP	10K	5%	1/16W
R701	1-218-953-11	RES-CHIP	1K	5%	1/16W
R702	1-218-945-11	RES-CHIP	220	5%	1/16W
R810	1-218-965-11	RES-CHIP	10K	5%	1/16W
R811	1-218-965-11	RES-CHIP	10K	5%	1/16W
R812	1-218-965-11	RES-CHIP	10K	5%	1/16W
R813	1-218-965-11	RES-CHIP	10K	5%	1/16W
R814	1-218-965-11	RES-CHIP	10K	5%	1/16W
R815	1-218-965-11	RES-CHIP	10K	5%	1/16W
R816	1-218-965-11	RES-CHIP	10K	5%	1/16W
R817	1-218-965-11	RES-CHIP	10K	5%	1/16W
R823	1-218-965-11	RES-CHIP	10K	5%	1/16W
R826	1-208-643-11	RES-CHIP	22	5%	1/16W
R830	1-218-965-11	RES-CHIP	10K	5%	1/16W
R844	1-218-965-11	RES-CHIP	10K	5%	1/16W
R845	1-218-965-11	RES-CHIP	10K	5%	1/16W
R900	1-218-941-81	RES-CHIP	100	5%	1/16W
R901	1-218-941-81	RES-CHIP	100	5%	1/16W
R902	1-218-941-81	RES-CHIP	100	5%	1/16W
R903	1-218-941-81	RES-CHIP	100	5%	1/16W
R904	1-218-941-81	RES-CHIP	100	5%	1/16W
R905	1-218-941-81	RES-CHIP	100	5%	1/16W
R908	1-218-965-11	RES-CHIP	10K	5%	1/16W
R909	1-218-965-11	RES-CHIP	10K	5%	1/16W
R910	1-218-941-81	RES-CHIP	100	5%	1/16W
R911	1-218-941-81	RES-CHIP	100	5%	1/16W
R912	1-218-941-81	RES-CHIP	100	5%	1/16W
R913	1-218-941-81	RES-CHIP	100	5%	1/16W
R914	1-218-941-81	RES-CHIP	100	5%	1/16W
R915	1-218-941-81	RES-CHIP	100	5%	1/16W
R916	1-218-941-81	RES-CHIP	100	5%	1/16W
R919	1-218-965-11	RES-CHIP	10K	5%	1/16W
R920	1-218-941-81	RES-CHIP	100	5%	1/16W
R921	1-218-941-81	RES-CHIP	100	5%	1/16W
R922	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R924	1-218-965-11	RES-CHIP	10K	5%	1/16W
R928	1-218-941-81	RES-CHIP	100	5%	1/16W
R929	1-218-989-11	RES-CHIP	1M	5%	1/16W
R930	1-218-965-11	RES-CHIP	10K	5%	1/16W
R931	1-218-945-11	RES-CHIP	220	5%	1/16W
R932	1-218-965-11	RES-CHIP	10K	5%	1/16W
R934	1-218-965-11	RES-CHIP	10K	5%	1/16W
R936	1-218-965-11	RES-CHIP	10K	5%	1/16W
R937	1-218-965-11	RES-CHIP	10K	5%	1/16W
R940	1-218-965-11	RES-CHIP	10K	5%	1/16W
R941	1-218-965-11	RES-CHIP	10K	5%	1/16W
R942	1-218-965-11	RES-CHIP	10K	5%	1/16W
R943	1-218-965-11	RES-CHIP	10K	5%	1/16W
R944	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R945	1-218-965-11	RES-CHIP	10K	5%	1/16W
R946	1-218-965-11	RES-CHIP	10K	5%	1/16W
R947	1-218-965-11	RES-CHIP	10K	5%	1/16W
R948	1-218-965-11	RES-CHIP	10K	5%	1/16W
R949	1-218-965-11	RES-CHIP	10K	5%	1/16W
R950	1-218-973-11	RES-CHIP	47K	5%	1/16W
R952	1-218-965-11	RES-CHIP	10K	5%	1/16W
R953	1-218-965-11	RES-CHIP	10K	5%	1/16W
R954	1-218-965-11	RES-CHIP	10K	5%	1/16W
R955	1-218-965-11	RES-CHIP	10K	5%	1/16W
R956	1-218-965-11	RES-CHIP	10K	5%	1/16W
R957	1-218-965-11	RES-CHIP	10K	5%	1/16W
R959	1-218-953-11	RES-CHIP	1K	5%	1/16W
R960	1-218-965-11	RES-CHIP	10K	5%	1/16W
R961	1-218-965-11	RES-CHIP	10K	5%	1/16W
R962	1-218-965-11	RES-CHIP	10K	5%	1/16W
R963	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R964	1-218-973-11	RES-CHIP	47K	5%	1/16W
R965	1-218-965-11	RES-CHIP	10K	5%	1/16W
R967	1-218-941-81	RES-CHIP	100	5%	1/16W
R968	1-218-941-81	RES-CHIP	100	5%	1/16W
R969	1-218-941-81	RES-CHIP	100	5%	1/16W
R970	1-218-941-81	RES-CHIP	100	5%	1/16W
R971	1-218-941-81	RES-CHIP	100	5%	1/16W
R972	1-218-965-11	RES-CHIP	10K	5%	1/16W
R978	1-218-965-11	RES-CHIP	10K	5%	1/16W
R980	1-218-965-11	RES-CHIP	10K	5%	1/16W
R982	1-218-965-11	RES-CHIP	10K	5%	1/16W
R983	1-218-965-11	RES-CHIP	10K	5%	1/16W
R984	1-218-965-11	RES-CHIP	10K	5%	1/16W
R985	1-218-985-11	RES-CHIP	470K	5%	1/16W
R986	1-218-973-11	RES-CHIP	47K	5%	1/16W
R987	1-218-973-11	RES-CHIP	47K	5%	1/16W
R990	1-218-965-11	RES-CHIP	10K	5%	1/16W
R991	1-218-965-11	RES-CHIP	10K	5%	1/16W
R992	1-218-965-11	RES-CHIP	10K	5%	1/16W
		< VARIABLE RESISTOR >			
RV501	1-223-583-11	RES, ADJ, CARBON 1K (VIDEO LEVEL)			
		< VIBRATOR >			
X101	1-795-174-11	VIBRATOR, CERAMIC (16.5MHz)			
X102	1-759-630-11	VIBRATOR, CRYSTAL (27MHz)			
X600	1-795-126-21	VIBRATOR, CRYSTAL (12.288MHz)			
X601	1-795-363-21	VIBRATOR, CERAMIC (13.5MHz)			
X901	1-767-922-11	VIBRATOR, CERAMIC (16MHz)			
**********					
	A-4728-803-A	FP-1030 BOARD, COMPLETE			
		**********			
	4-234-908-01	HOLDER (FL)			
		< CAPACITOR >			
C812	1-124-589-11	ELECT	47uF	20%	16V
C813	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C814	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C815	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C816	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C817	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C818	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C819	1-164-360-11	CERAMIC CHIP	0.1uF		16V
		< CONNECTOR >			
CN801	1-785-414-11	CONNECTOR, FFC/FPC 15P			
CN802	1-506-481-11	PIN, CONNECTOR 2P			
CN804	1-568-955-11	PIN, CONNECTOR 6P			
* CN813	1-568-941-11	PIN, CONNECTOR 3P			
		< FERRITE BEAD >			

Ref. No.	Part No.	Description			Remarks
FB800	1-414-813-11	FERRITE	0UH		
FB801	1-414-813-11	FERRITE	0UH		
FB802	1-414-813-11	FERRITE	0UH		
		< FLUORESCENT INDICATOR TUBE >			
FL801	1-518-767-21	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC802	6-700-112-01	IC MSM9202-05GS-KDR1			
		< TRANSISTOR >			
Q801	8-729-602-36	TRANSISTOR 2SA1602-F			
		< RESISTOR >			
R805	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R838	1-216-805-11	METAL CHIP	47	5%	1/16W
R840	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R841	1-216-809-11	METAL CHIP	100	5%	1/16W
R842	1-216-809-11	METAL CHIP	100	5%	1/16W
R843	1-216-809-11	METAL CHIP	100	5%	1/16W
**********					
	1-681-991-22	FU-1030 BOARD **********			
		< CAPACITOR >			
C800	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C801	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< RESISTOR >			
R809	1-216-813-11	METAL CHIP	220	5%	1/16W
R837	1-216-815-11	METAL CHIP	330	5%	1/16W
R844	1-216-817-11	METAL CHIP	470	5%	1/16W
R849	1-216-819-11	METAL CHIP	680	5%	1/16W
R860	1-216-821-11	METAL CHIP	1K	5%	1/16W
R864	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R873	1-216-813-11	METAL CHIP	220	5%	1/16W
		< SWITCH >			
S800	1-418-632-11	ENCODER, ROTARY (VOLUME)			
S821	1-762-875-21	SWITCH, KEYBOARD (SOUND FIELD +)			
S822	1-762-875-21	SWITCH, KEYBOARD (SOUND FIELD -)			
S823	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)			
S824	1-762-875-21	SWITCH, KEYBOARD (BAND)			
S825	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)			
**********					
	1-681-996-22	HP-1030 BOARD **********			
		< CAPACITOR >			
C902	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C903	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V
C904	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V
		< FERRITE BEAD >			
FB803	1-469-144-21	FERRITE	0UH		
FB804	1-469-144-21	FERRITE	0UH		
FB805	1-469-144-21	FERRITE	0UH		
		< JACK >			
J900	1-566-891-21	JACK (PHONES)			
		< COIL >			
L900	1-410-387-11	INDUCTOR CHIP	33uH		
L901	1-410-387-11	INDUCTOR CHIP	33uH		
L902	1-469-144-21	FERRITE	0uH		
L903	1-469-144-21	FERRITE	0uH		
		< TRANSISTOR >			
Q900	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO			
Q901	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO			
		< RESISTOR >			
R900	1-216-864-11	METAL CHIP	0	5%	1/16W
R901	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R902	1-216-864-11	METAL CHIP	0	5%	1/16W
R903	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R905	1-216-821-11	METAL CHIP	1K	5%	1/16W
R906	1-216-821-11	METAL CHIP	1K	5%	1/16W
**********					
	A-4728-797-A	I/O BOARD, COMPLETE **********			
C600	1-128-551-11	ELECT	22uF	20%	25V
C601	1-128-551-11	ELECT	22uF	20%	25V
C602	1-126-933-11	ELECT	100uF	20%	16V
C603	1-126-960-11	ELECT	1uF	20%	50V
C604	1-126-960-11	ELECT	1uF	20%	50V
C605	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C606	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C608	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C609	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C610	1-128-551-11	ELECT	22uF	20%	25V
C611	1-128-551-11	ELECT	22uF	20%	25V
C613	1-128-551-11	ELECT	22uF	20%	25V
C614	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C615	1-128-551-11	ELECT	22uF	20%	25V
C616	1-128-551-11	ELECT	22uF	20%	25V
C617	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C618	1-128-551-11	ELECT	22uF	20%	25V
C619	1-128-551-11	ELECT	22uF	20%	25V
C620	1-128-551-11	ELECT	22uF	20%	25V
C621	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C622	1-128-551-11	ELECT	22uF	20%	25V
C623	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C624	1-128-551-11	ELECT	22uF	20%	25V
C625	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C626	1-128-551-11	ELECT	22uF	20%	25V
C627	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C631	1-128-551-11	ELECT	22uF	20%	25V
C632	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C635	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C636	1-126-947-11	ELECT	47uF	20%	16V
C637	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C638	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C639	1-164-185-11	CERAMIC CHIP	13PF	5%	50V
C640	1-164-185-11	CERAMIC CHIP	13PF	5%	50V
C641	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
C642	1-126-963-11	ELECT	4.7uF	20%	50V
C661	1-126-964-11	ELECT	10uF	20%	50V

I/O LOADING

Ref. No.	Part No.	Description			Remarks
C662	1-126-964-11	ELECT	10uF	20%	50V
C671	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C672	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C700	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C701	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C707	1-117-370-11	CERAMIC CHIP	10uF		10V
C723	1-124-261-00	ELECT	10uF	20%	50V
C724	1-125-972-61	ELECT	100uF	20%	16V
C725	1-124-234-00	ELECT	22uF	20%	16V
C730	1-125-972-61	ELECT	100uF	20%	16V
C731	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C802	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C803	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
		< CONNECTOR >			
CN600	1-794-431-11	CONNECTOR, FFC/FPC 13P			
CN601	1-779-297-11	CONNECTOR, FFC(LIF(NON-ZIF))29P			
CN700	1-779-277-11	CONNECTOR, FFC(LIF(NON-ZIF))9P			
		< DIODE >			
D601	8-719-056-85	DIODE UDZ-TE-17-8.2B			
D602	8-719-056-78	DIODE UDZ-TE-17-4.3B			
		< IC >			
IC600	8-759-385-76	IC MC14052BDR2			
IC602	8-749-923-05	IC TORX178B (AUDIO 2)			
IC604	8-759-557-36	IC BU1924F-E2			
IC701	8-759-680-28	IC BA7666FS-E2			
		< JACK >			
J600	1-779-688-11	JACK, PIN 6P (AUDIO 1/AUDIO 2)			
J700	1-785-867-11	JACK, PIN 1P (MONITOR OUT)			
		< COIL >			
L600	1-216-295-91	SHORT CHIP	0		
L601	1-469-525-91	INDUCTOR	10uH		
L700	1-412-953-11	INDUCTOR	15uH		
L707	1-469-525-91	INDUCTOR	10uH		
		< TRANSISTOR >			
Q600	8-729-801-93	TRANSISTOR 2SD1387-3			
Q601	8-729-027-23	TRANSISTOR DTA114EKA-T146			
Q602	8-729-901-00	TRANSISTOR DTC124EK			
Q603	8-729-901-00	TRANSISTOR DTC124EK			
Q604	8-729-901-00	TRANSISTOR DTC124EK			
Q605	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO			
Q606	8-729-046-97	TRANSISTOR 2SD1938(F)-T(TX).SO			
Q607	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
		< RESISTOR >			
R600	1-216-813-11	METAL CHIP	220	5%	1/16W
R601	1-216-813-11	METAL CHIP	220	5%	1/16W
R602	1-216-813-11	METAL CHIP	220	5%	1/16W
R603	1-216-813-11	METAL CHIP	220	5%	1/16W
R604	1-216-813-11	METAL CHIP	220	5%	1/16W
R605	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R606	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R607	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R608	1-216-864-11	METAL CHIP	0	5%	1/16W
R609	1-216-839-11	METAL CHIP	33K	5%	1/16W
R610	1-216-833-11	METAL CHIP	10K	5%	1/16W
R611	1-216-809-11	METAL CHIP	100	5%	1/16W
R612	1-216-839-11	METAL CHIP	33K	5%	1/16W
R613	1-216-833-11	METAL CHIP	10K	5%	1/16W
R614	1-216-809-11	METAL CHIP	100	5%	1/16W
R615	1-216-845-11	METAL CHIP	100K	5%	1/16W
R616	1-216-845-11	METAL CHIP	100K	5%	1/16W
R617	1-216-839-11	METAL CHIP	33K	5%	1/16W
R618	1-216-839-11	METAL CHIP	33K	5%	1/16W
R619	1-216-821-11	METAL CHIP	1K	5%	1/16W
R620	1-216-821-11	METAL CHIP	1K	5%	1/16W
R621	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R622	1-216-833-11	METAL CHIP	10K	5%	1/16W
R623	1-216-821-11	METAL CHIP	1K	5%	1/16W
R624	1-216-841-11	METAL CHIP	47K	5%	1/16W
R625	1-216-833-11	METAL CHIP	10K	5%	1/16W
R626	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R627	1-216-833-11	METAL CHIP	10K	5%	1/16W
R628	1-216-833-11	METAL CHIP	10K	5%	1/16W
R629	1-216-841-11	METAL CHIP	47K	5%	1/16W
R630	1-216-833-11	METAL CHIP	10K	5%	1/16W
R631	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R632	1-216-833-11	METAL CHIP	10K	5%	1/16W
R633	1-216-821-11	METAL CHIP	1K	5%	1/16W
R634	1-216-833-11	METAL CHIP	10K	5%	1/16W
R635	1-216-841-11	METAL CHIP	47K	5%	1/16W
R636	1-216-833-11	METAL CHIP	10K	5%	1/16W
R637	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R638	1-216-833-11	METAL CHIP	10K	5%	1/16W
R639	1-216-841-11	METAL CHIP	47K	5%	1/16W
R640	1-216-833-11	METAL CHIP	10K	5%	1/16W
R641	1-216-809-11	METAL CHIP	100	5%	1/16W
R642	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R643	1-216-853-11	METAL CHIP	470K	5%	1/16W
R644	1-216-845-11	METAL CHIP	100K	5%	1/16W
R645	1-216-821-11	METAL CHIP	1K	5%	1/16W
R646	1-216-814-11	METAL CHIP	270	5%	1/16W
R647	1-216-841-11	METAL CHIP	47K	5%	1/16W
R648	1-216-843-11	METAL CHIP	68K	5%	1/16W
R649	1-216-845-11	METAL CHIP	100K	5%	1/16W
R650	1-216-845-11	METAL CHIP	100K	5%	1/16W
R700	1-218-289-11	RES-CHIP	510	5%	1/10W
R705	1-218-285-11	RES-CHIP	75	5%	1/10W
		< VIBRATOR >			
X601	1-579-242-41	VIBRATOR, CRYSTAL (4.332MHz)			

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	1-674-336-21	LOADING BOARD	
		**********	
		< CONNECTOR >	
* CN1	1-568-943-11	PIN, CONNECTOR 5P	
		< SWITCH >	
S1	1-786-203-11	SWITCH, LEVER (SLIDE) (TRAY OPEN)	

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PW-1030 | RF-240 | RR-1030 | SW(A)-1030

Ref. No.	Part No.	Description			Remarks
	1-681-994-22	PW-1030 BOARD **********			
	4-237-280-01	CAP, LED			
		< DIODE >			
D812	8-719-071-44	DIODE SELS5223C-TP15 (POWER)			
		< RESISTOR >			
R804	1-216-820-11	METAL CHIP	820	5%	1/16W
**********					
	A-4726-519-A	RF-240 BOARD, COMPLETE **********			
		< CAPACITOR >			
C001	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C002	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C005	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C006	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C007	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C008	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C009	1-124-779-00	ELECT CHIP	10uF	20%	16V
C015	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C016	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C017	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C018	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C019	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
C021	1-124-779-00	ELECT CHIP	10uF	20%	16V
C022	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C023	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C024	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C025	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C026	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C027	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C028	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C031	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C032	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C033	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C034	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C035	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C036	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C038	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C039	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C040	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C043	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C044	1-124-779-00	ELECT CHIP	10uF	20%	16V
C046	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C047	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C048	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< CONNECTOR >			
CN001	1-766-835-21	CONNECTOR, FFC/FPC (ZIF) 26P			
CN002	1-784-875-21	CONNECTOR,FFC(LIF(NON-ZIF))25P			
		< DIODE >			
D001	8-719-988-61	DIODE 1SS355TE-17			
D004	8-719-988-61	DIODE 1SS355TE-17			
		< IC >			
IC001	8-759-828-02	IC SP3728AC			
		< COIL >			
L001	1-412-031-11	INDUCTOR CHIP 47uH			
L002	1-412-031-11	INDUCTOR CHIP 47uH			
		< TRANSISTOR >			
Q001	8-729-903-46	TRANSISTOR 2SB1132-T100-QR			
Q002	8-729-903-46	TRANSISTOR 2SB1132-T100-QR			
		< RESISTOR >			
R002	1-216-809-11	METAL CHIP	100	5%	1/16W
R003	1-216-809-11	METAL CHIP	100	5%	1/16W
R005	1-216-845-11	METAL CHIP	100K	5%	1/16W
R006	1-216-838-11	METAL CHIP	27K	5%	1/16W
R007	1-216-803-11	METAL CHIP	33	5%	1/16W
R008	1-216-803-11	METAL CHIP	33	5%	1/16W
R009	1-216-821-11	METAL CHIP	1K	5%	1/16W
R010	1-216-841-11	METAL CHIP	47K	5%	1/16W
R011	1-216-809-11	METAL CHIP	100	5%	1/16W
R020	1-216-803-11	METAL CHIP	33	5%	1/16W
R023	1-216-803-11	METAL CHIP	33	5%	1/16W
R025	1-216-841-11	METAL CHIP	47K	5%	1/16W
R029	1-216-809-11	METAL CHIP	100	5%	1/16W
R037	1-216-834-11	METAL CHIP	12K	5%	1/16W
R038	1-216-861-11	METAL CHIP	2.2M	5%	1/16W
R045	1-216-809-11	METAL CHIP	100	5%	1/16W
**********					
	1-681-995-22	RR-1030 BOARD **********			
		< CAPACITOR >			
C806	1-126-153-11	ELECT	22uF	20%	6.3V
C808	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< IC >			
IC101	8-759-827-70	IC NJL64H400A-1			
		< RESISTOR >			
R815	1-216-805-11	METAL CHIP	47	5%	1/16W
**********					
	1-681-992-22	SW (A)-1030 BOARD **********			
		< CONNECTOR >			
CN810	1-506-481-11	PIN, CONNECTOR 2P			
		< RESISTOR >			
R800	1-216-815-11	METAL CHIP	330	5%	1/16W
R801	1-216-817-11	METAL CHIP	470	5%	1/16W
R802	1-216-819-11	METAL CHIP	680	5%	1/16W
R803	1-216-821-11	METAL CHIP	1K	5%	1/16W
		< SWITCH >			
S801	1-786-348-21	SWITCH, KEY BOARD (■)			
S802	1-786-348-21	SWITCH, KEY BOARD (❚❚)			
S803	1-786-348-21	SWITCH, KEY BOARD (PRESET +/NEXT▶▶❙)			
S804	1-786-348-21	SWITCH, KEY BOARD (▷)			
S805	1-786-348-21	SWITCH, KEY BOARD (PRESET –/❙◀◀ PREV)			
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SW(B)-1030

Ref. No.	Part No.	Description	Remarks
	1-681-993-22	SW (B)-1030 BOARD **********	
		< CONNECTOR >	
CN812	1-506-481-11	PIN, CONNECTOR 2P	
		< SWITCH >	
S806	1-786-348-21	SWITCH, KEY BOARD (OPEN/CLOSE⏏)	
**********			
		MISCELLANEOUS **********	
⚠	1-770-019-51	ADAPTOR, CONVERSION PLUG	(UK)
⚠7	1-769-744-11	CORD, POWER	
65	1-823-076-11	CABLE, FLEXIBLE FLAT (15 CORE)	
101	1-693-586-11	TUNER	
102	1-823-082-11	CABLE, FLEXIBLE FLAT (13 CORE)	
104	1-823-079-11	CABLE, FLEXIBLE FLAT (29 CORE)	
105	1-823-074-11	CABLE, FLEXIBLE FLAT (9 CORE)	
⚠110	1-761-558-11	REGULATOR, SWITCHING	
111	1-823-075-21	CABLE, FLEXIBLE FLAT (12 CORE)	
112	1-823-353-21	CABLE, FLEXIBLE FLAT (17 CORE)	
114	1-823-354-11	CABLE, FLEXIBLE FLAT (25 CORE)	
⚠519	8-820-144-06	OPTICAL PICK-UP KHM-240AAA (TYPE A)	
⚠519	A-6062-709-A	SERVICE ASSY, KHM-270AAA (TYPE B)	
520	1-823-072-11	CABLE, FLEXIBLE FLAT 26P	
521	1-823-073-11	CABLE, FLEXIBLE FLAT (9 CORE)	
M901	A-4672-984-A	MOTOR (LD) ASSY	
⚠S901	1-786-210-11	SWITCH, POWER	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2002.04	New
1.1	2002.12	Servicing note addition of the remote controller. (SPM-02118)
1.2	2003.01	Change of optical pick-up. Note addition in the optical pick-up exchange. (SPM-02121,SPM-03003)
1.3	2003.02	Change of the above note. (SPM-03005)